

PRELIMINARY REPORT OF 060605

last update on Mon Jun 5 16:43:14 GMT 2006

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1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA_WVS_1P), global monitoring products (ASA_GM1_1P), which are the available few hours after the acquisition, on the browse (BP) products and on the Module Stepping (MS) product.

2 - Summary

2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Auxiliary files

Summary of the auxiliary files used from 2006-06-04 00:00:00 to 2006-06-05 16:43:14

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	47	68	10	0	15
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	47	68	10	0	15
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	47	68	10	0	15
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	47	68	10	0	15

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	35	46	24	21	59
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	35	46	24	21	59
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	35	46	24	21	59
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	35	46	24	21	59

2.3 - Browse Visual Inspection

2.4 - Data Analysis

- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

3 - Module Stepping Mode

No anomalies observed on available MS products:

Polarisation	Start Time
V	20060603 064401
H	20060604 061224

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒
☒	☒
☒	☒
☒	☒

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
<input type="checkbox"/>
<input type="checkbox"/>

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
<input type="checkbox"/>
<input type="checkbox"/>

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
<input type="checkbox"/>

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.953166	0.017319	0.058055
7	P1	-3.110902	0.016615	-0.047211
11	P1	-4.108783	0.018090	0.012483
15	P1	-6.135273	0.019913	0.002779
19	P1	-3.324407	0.008432	-0.041599
22	P1	-4.516807	0.011368	0.032456
26	P1	-3.983225	0.018364	0.047491
30	P1	-5.747078	0.008427	0.022499
3	P1	-16.563477	0.261456	0.167465
7	P1	-17.158655	0.148580	-0.145087
11	P1	-16.929243	0.313799	-0.041974
15	P1	-13.210995	0.214917	0.020256
19	P1	-14.270672	0.048105	-0.094482
22	P1	-16.158859	0.383261	-0.003544
26	P1	-15.261765	0.247309	0.095582
30	P1	-17.033194	0.376093	-0.203133

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.200172	0.080929	0.148238
7	P2	-22.082397	0.097014	0.161678
11	P2	-15.928126	0.109777	0.139611
15	P2	-7.161797	0.091769	0.036513
19	P2	-9.164817	0.084510	0.006340
22	P2	-18.126925	0.082320	-0.062890
26	P2	-16.371038	0.087290	-0.040213
30	P2	-19.575047	0.085250	0.083601

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.184992	0.004027	0.028425
7	P3	-8.184992	0.004027	0.028425
11	P3	-8.184992	0.004027	0.028425
15	P3	-8.184992	0.004027	0.028425
19	P3	-8.184992	0.004027	0.028425
22	P3	-8.184992	0.004027	0.028425
26	P3	-8.184992	0.004027	0.028425
30	P3	-8.184992	0.004027	0.028425

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1



P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.778882	0.064550	-0.074437
7	P1	-2.603798	0.031954	0.046738
11	P1	-2.865560	0.023869	0.004281
15	P1	-3.499208	0.049298	-0.030241
19	P1	-3.396703	0.014068	-0.013658
22	P1	-5.086871	0.020000	0.017384
26	P1	-5.838151	0.015519	-0.007810
30	P1	-5.186917	0.026625	0.022602
3	P1	-11.615645	0.080841	-0.027444
7	P1	-9.964298	0.054078	0.019340
11	P1	-10.202431	0.085239	-0.017079
15	P1	-10.629848	0.149583	-0.104116
19	P1	-15.509337	0.076030	-0.046373
22	P1	-20.887375	1.233868	-0.042891
26	P1	-16.477320	0.353739	0.056607
30	P1	-18.003309	0.389562	0.264605

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.886955	0.065740	0.119673
7	P2	-22.511505	0.124469	0.085683
11	P2	-11.176910	0.044386	0.068014
15	P2	-4.903937	0.045099	-0.004846
19	P2	-6.875113	0.044904	0.010189
22	P2	-8.193957	0.040131	-0.020227
26	P2	-24.107595	0.063272	-0.041137
30	P2	-22.061966	0.051455	0.004666

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.018033	0.004605	0.027515
7	P3	-8.018133	0.004598	0.027597
11	P3	-8.018088	0.004585	0.027593
15	P3	-8.017970	0.004594	0.027247
19	P3	-8.018073	0.004597	0.027460
22	P3	-8.018123	0.004584	0.027345
26	P3	-8.018067	0.004585	0.026955
30	P3	-8.018008	0.004596	0.027355

4.3 - cal pulses monitoring (all rows)

4.3.1 - Evolution for WVS



4.3.2 - Evolution for GM1



5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000528042
	stdev	1.92439e-07
MEAN Q	mean	0.000507969
	stdev	2.31303e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.133762
	stdev	0.00119503
STDEV Q	mean	0.134100
	stdev	0.00121172



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006060[345]

The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20060603_035851_00000852048_00162_22260_2386.N1	0	39
ASA_WSM_1PNPDE20060603_112210_00002262048_00166_22264_2437.N1	0	64
ASA_WSM_1PNPDE20060604_165033_00000852048_00184_22282_2609.N1	0	34
ASA_WSM_1PNPDE20060604_183353_00000852048_00185_22283_2624.N1	0	39
ASA_WSM_1PNPDE20060605_015912_00000852048_00189_22287_2669.N1	0	63
ASA_WSM_1PNPDE20060605_043830_00001282048_00191_22289_2688.N1	0	34
ASA_WSM_1PNPDK20060604_083041_00000862048_00179_22277_6799.N1	0	71
ASA_WSM_1PNPDK20060604_133138_00002932048_00182_22280_6822.N1	0	23



7 - Doppler Analysis

Preliminary report. The data is not yet controlled

7.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)
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Acsending



Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler



Acsending



Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX



7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

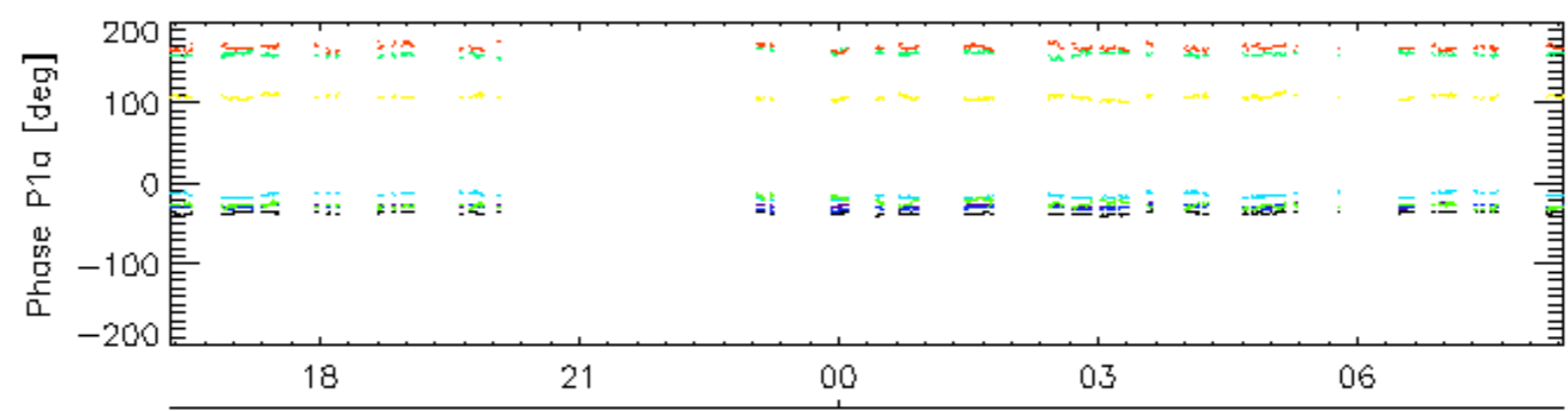
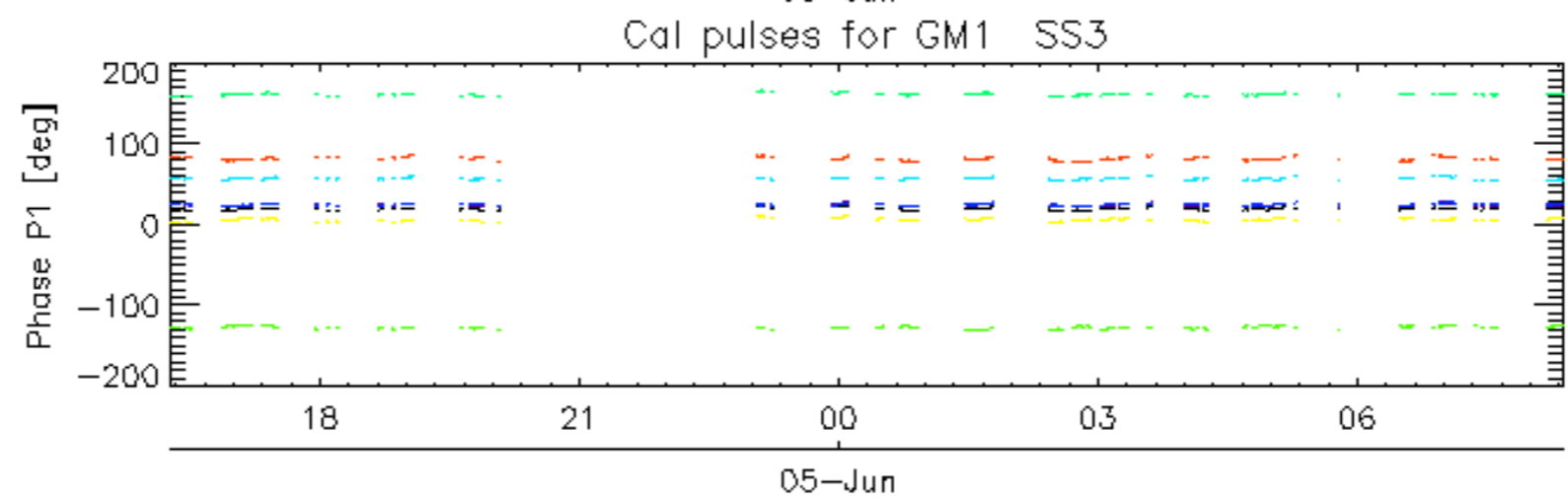
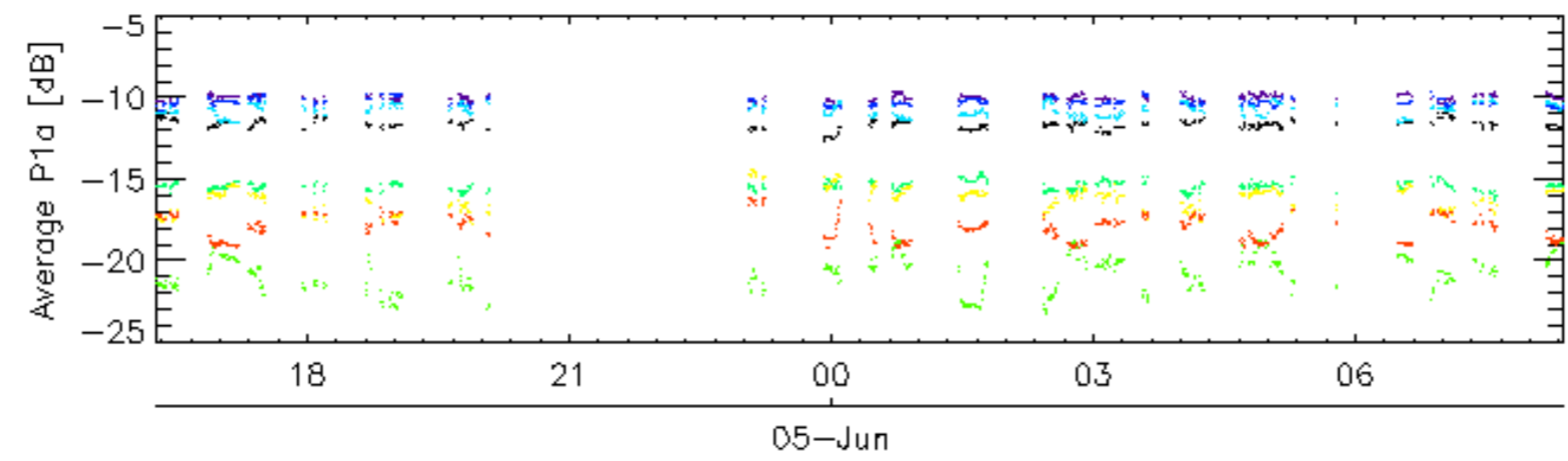
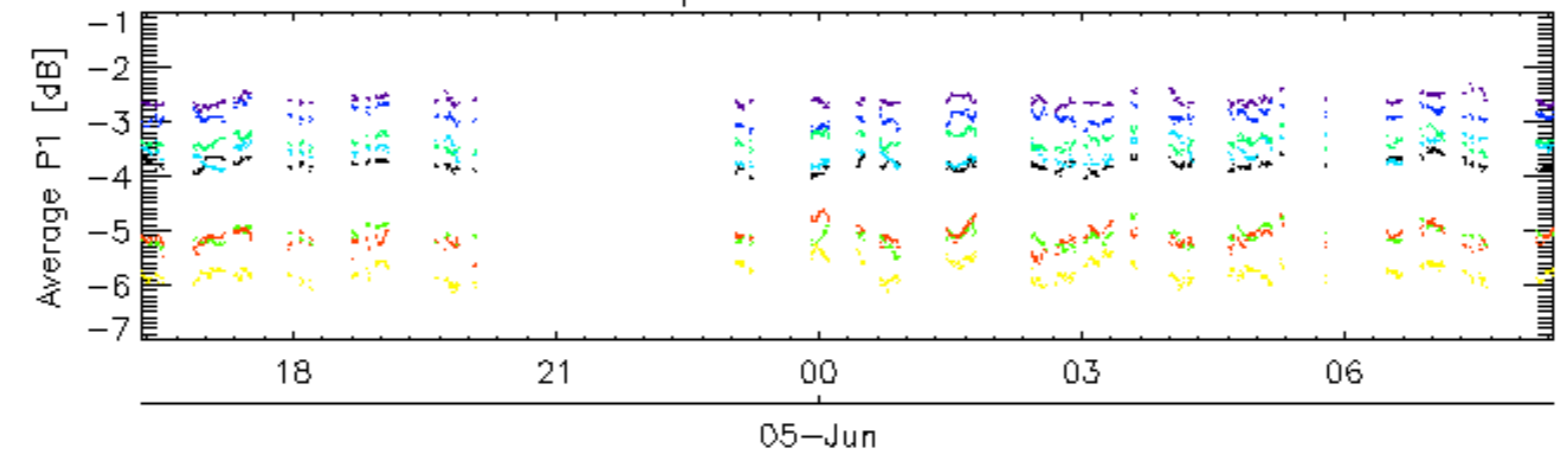
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

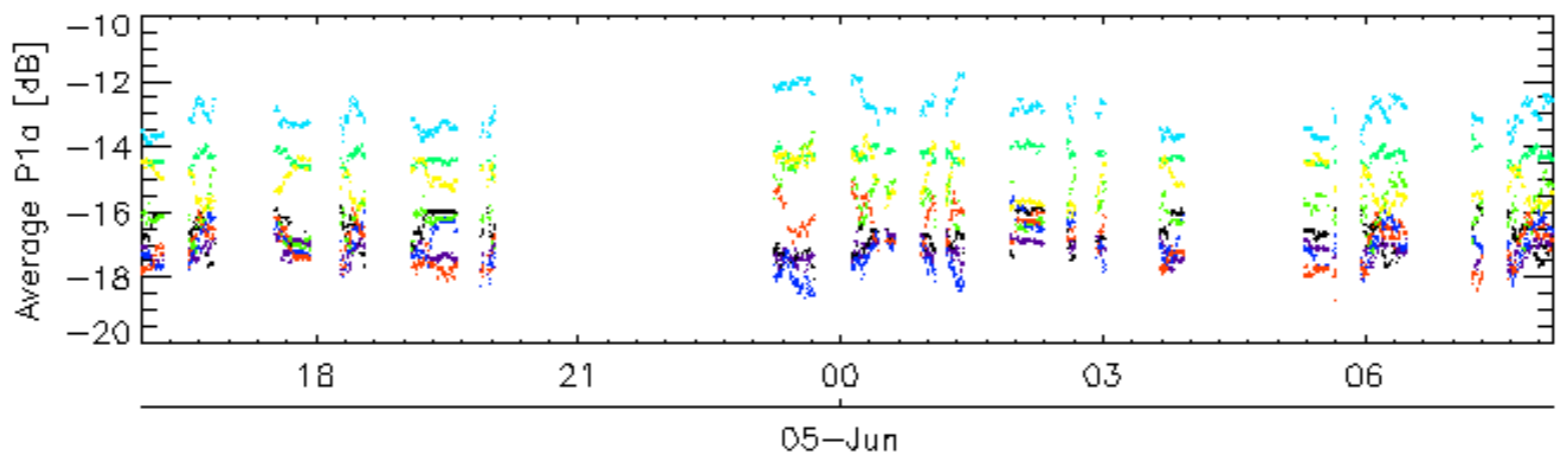
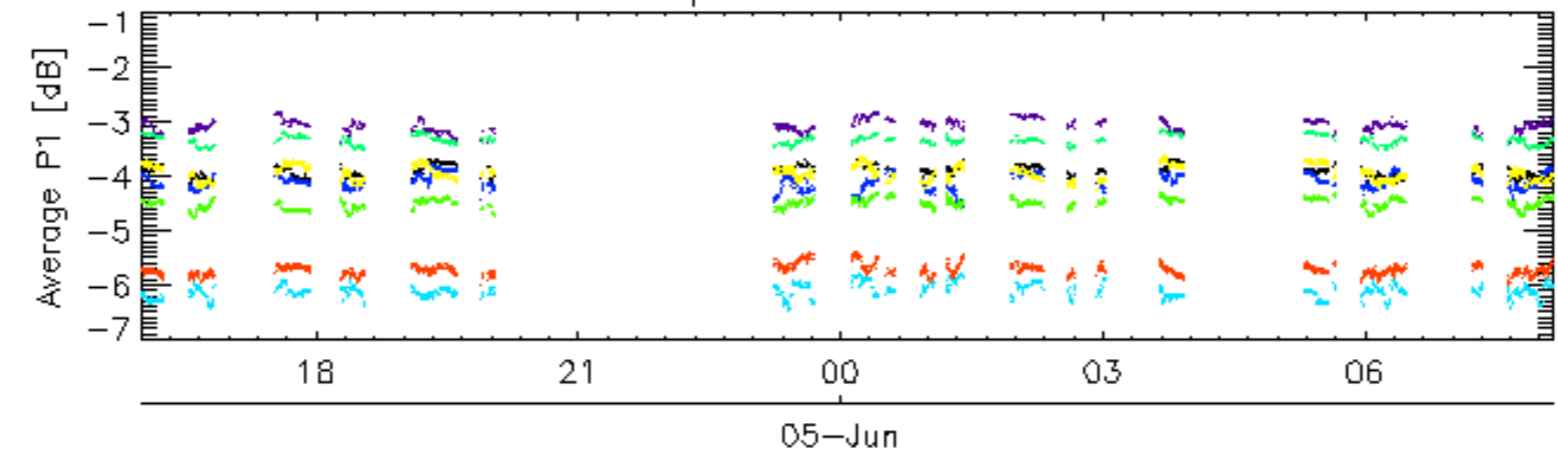
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Cal pulses for GM1 SS3

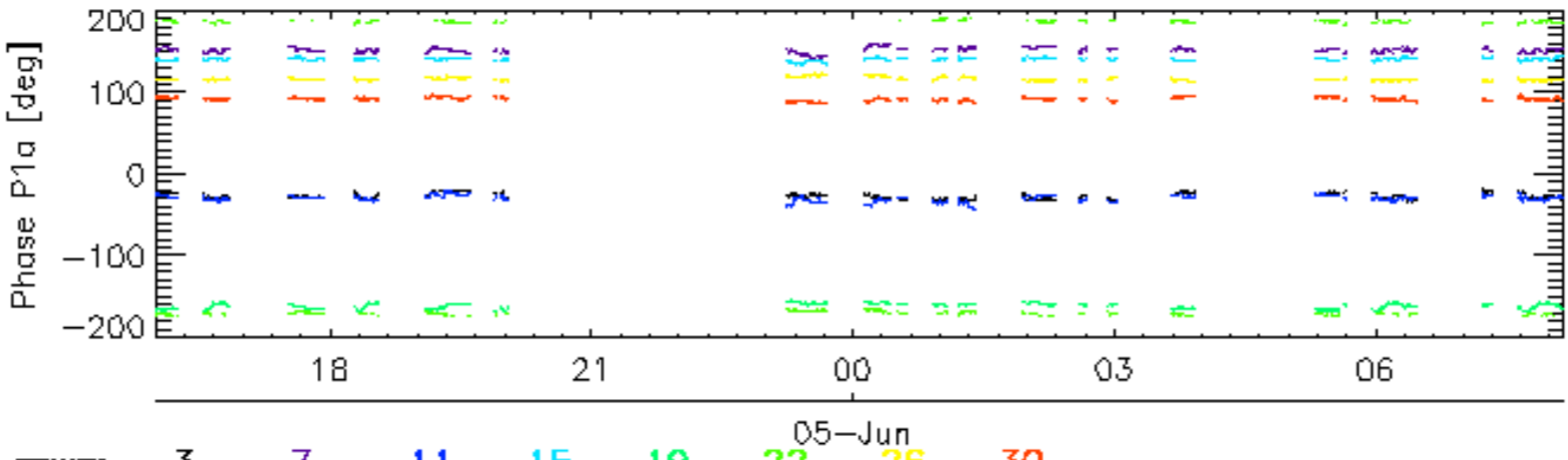
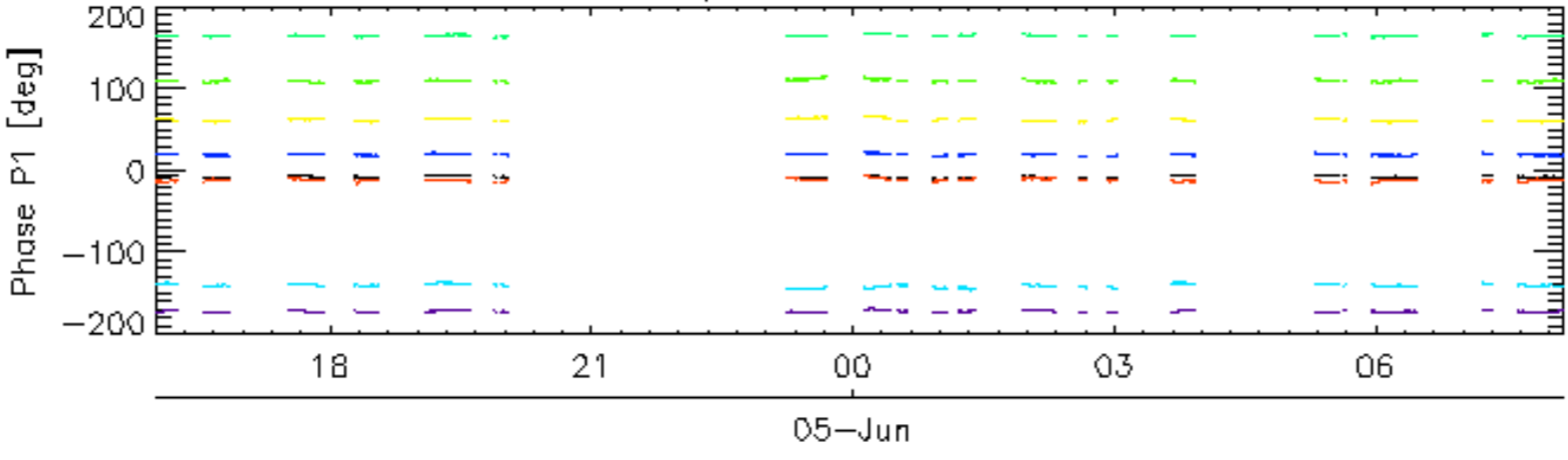


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

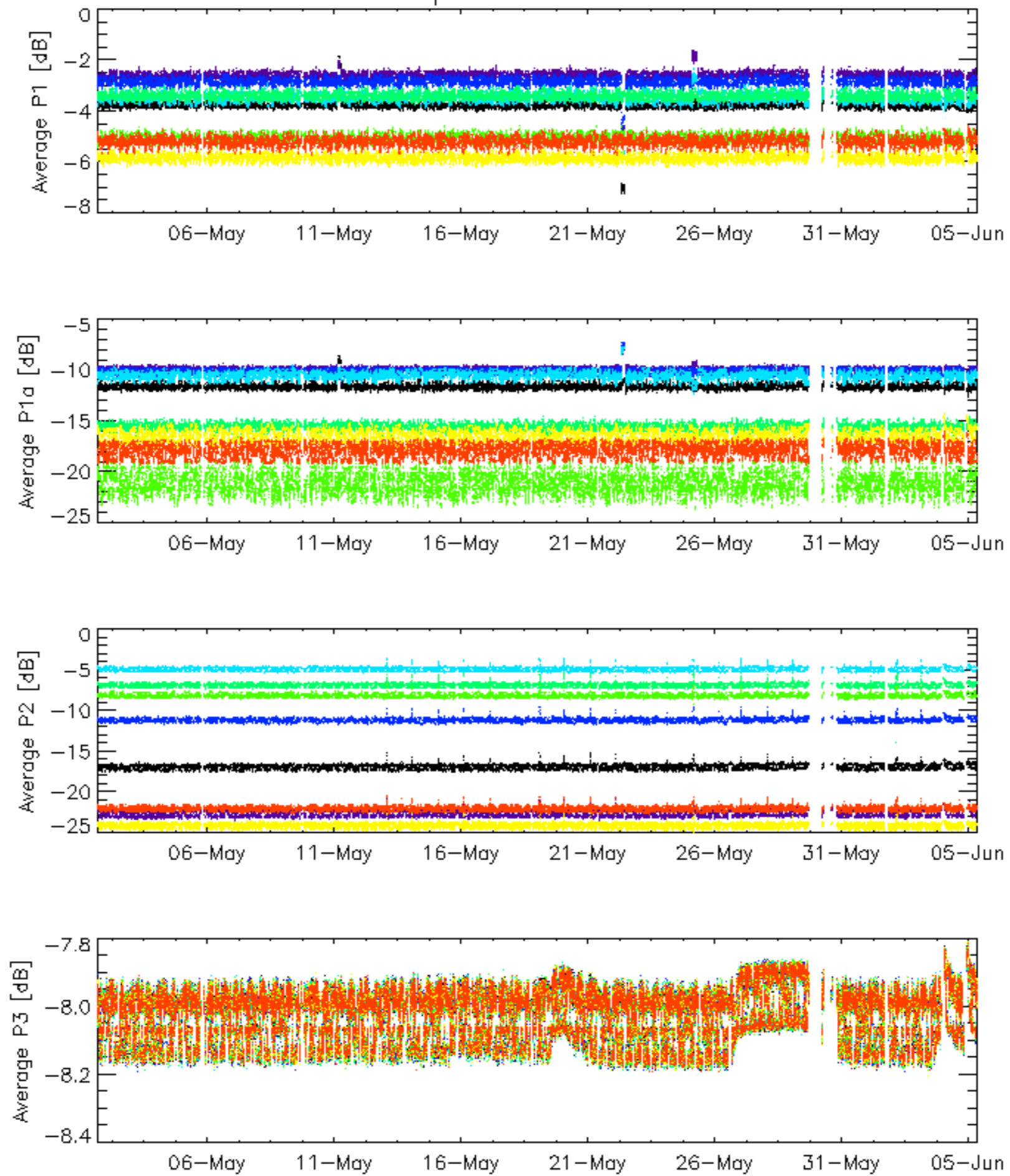


Cal pulses for WVS IS2



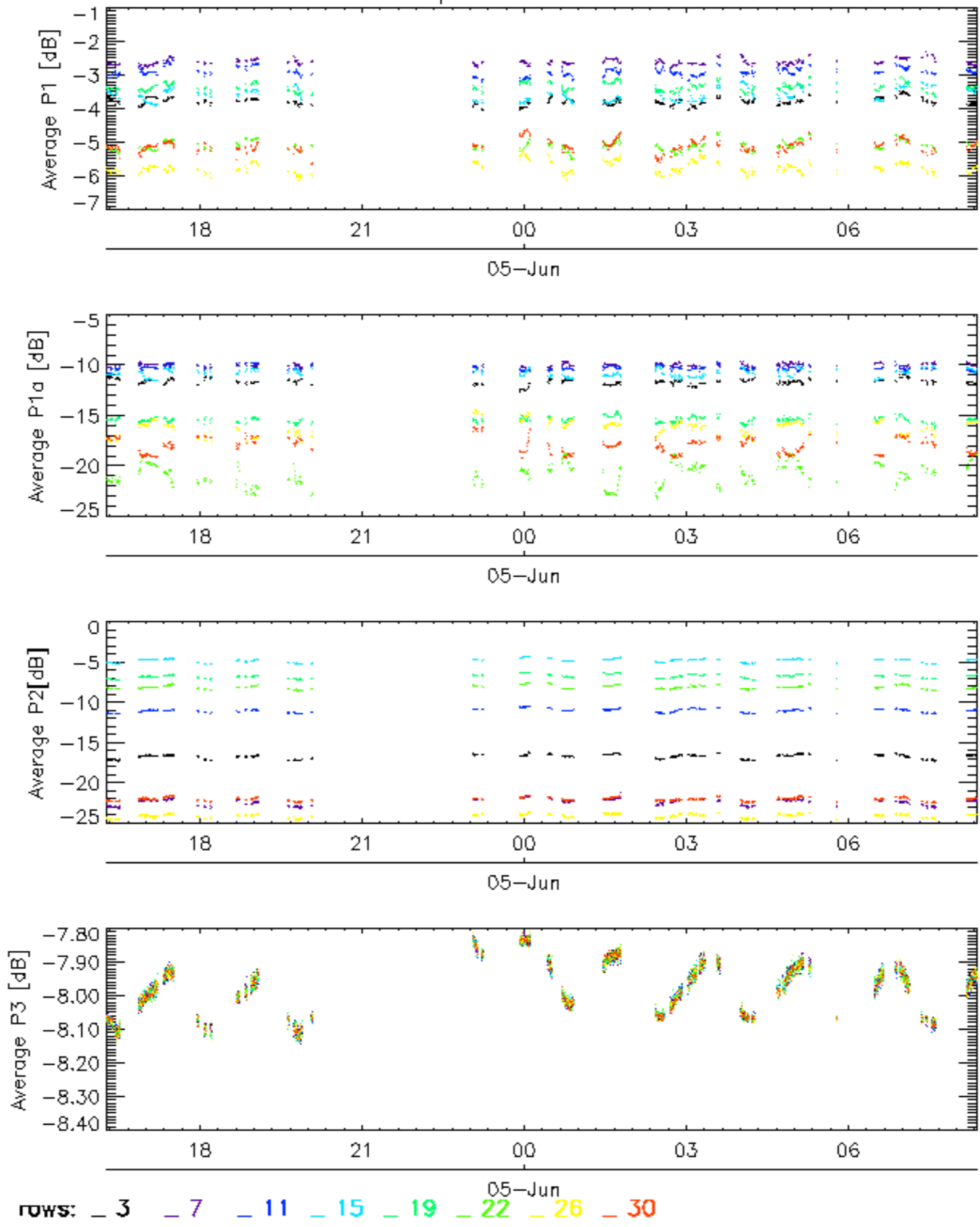
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

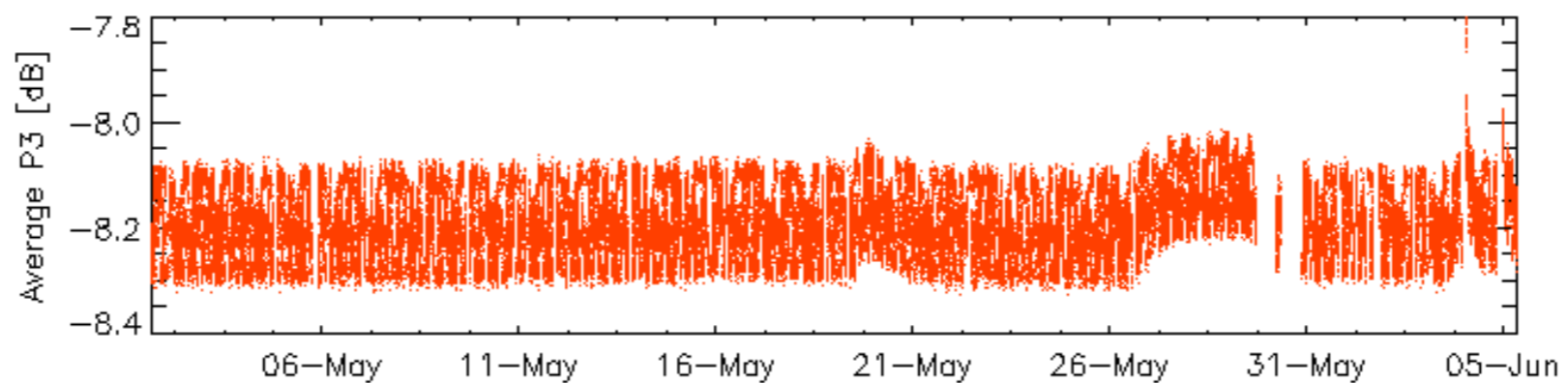
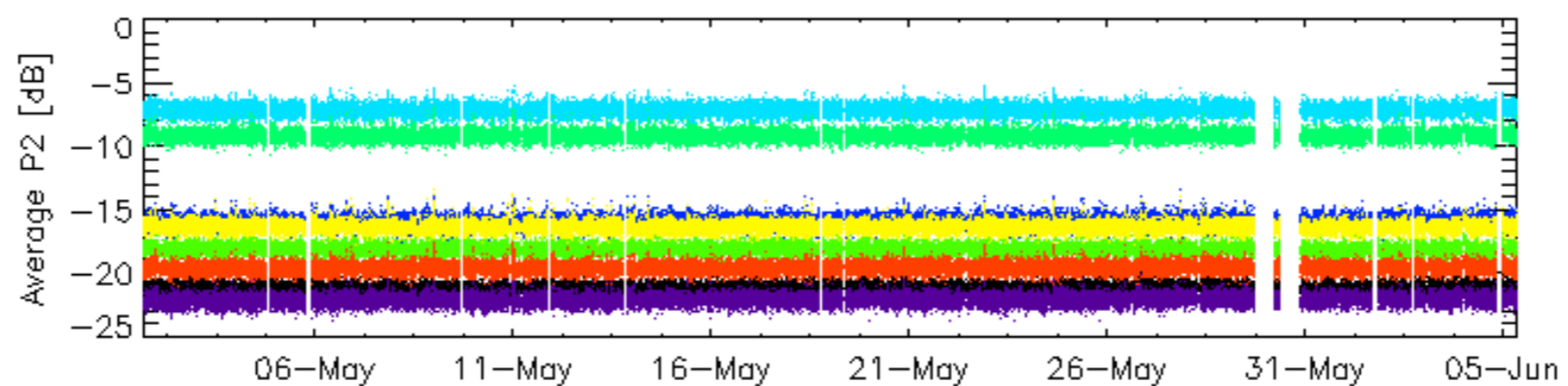
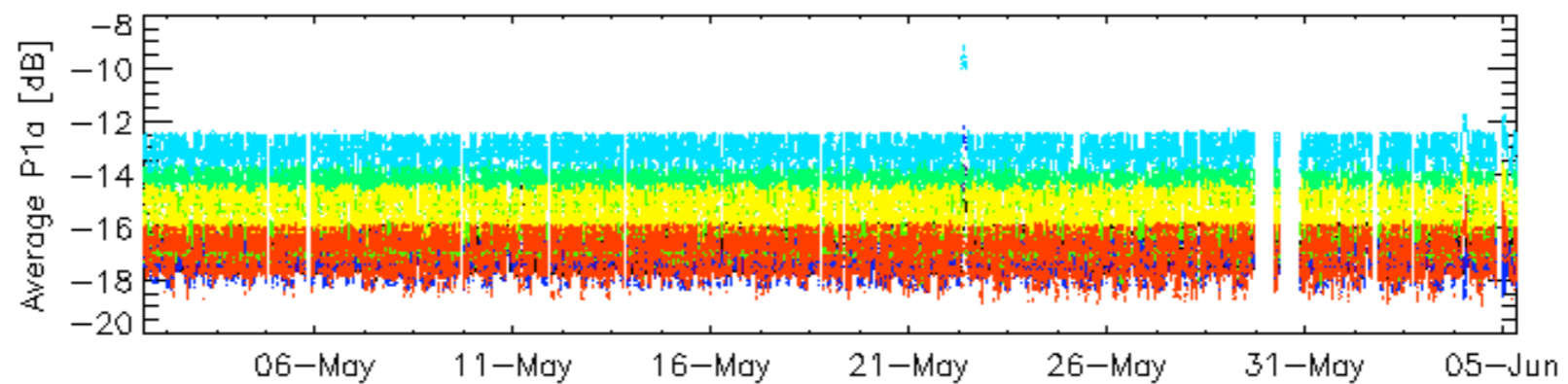
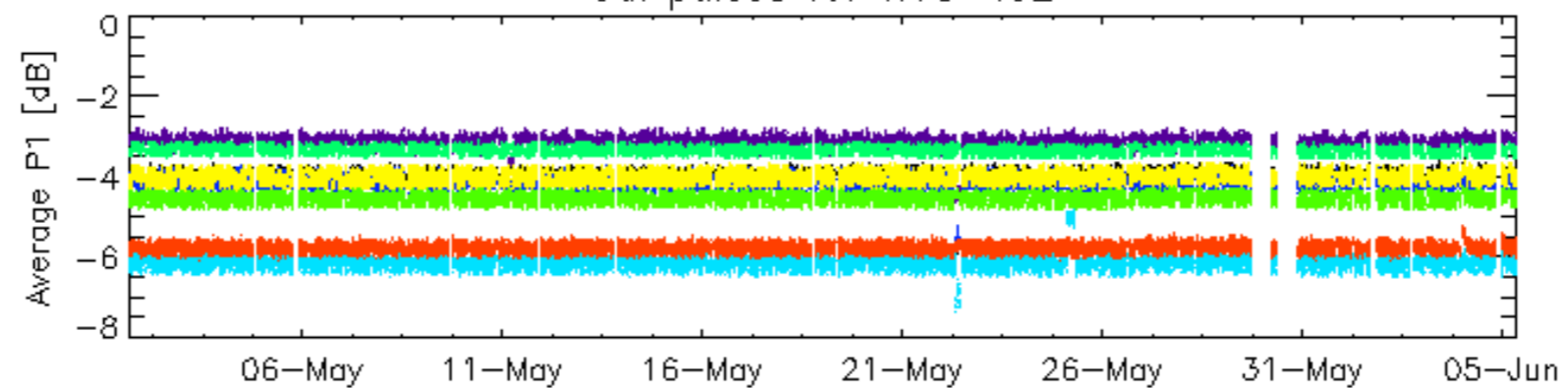


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

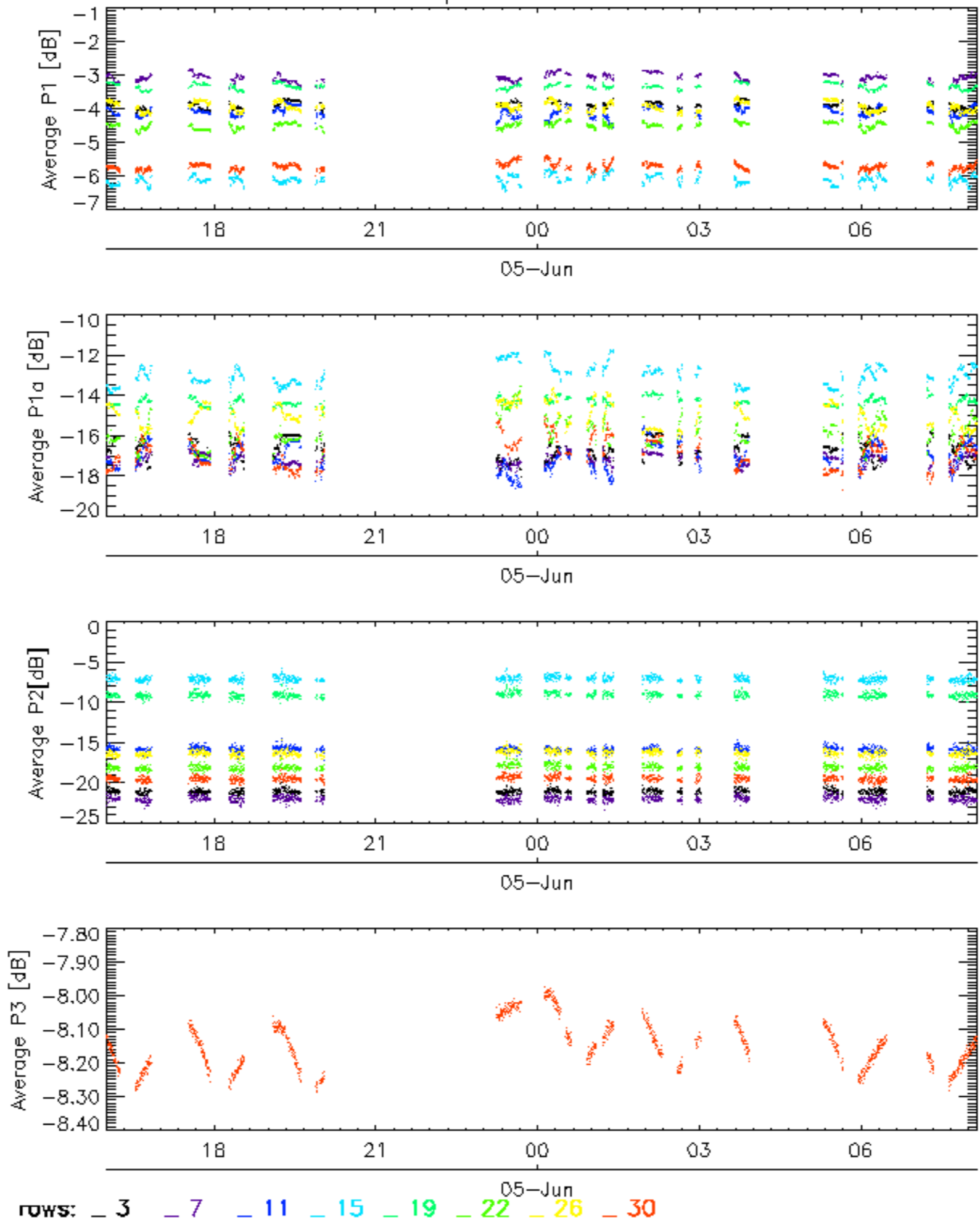


Cal pulses for WVS IS2

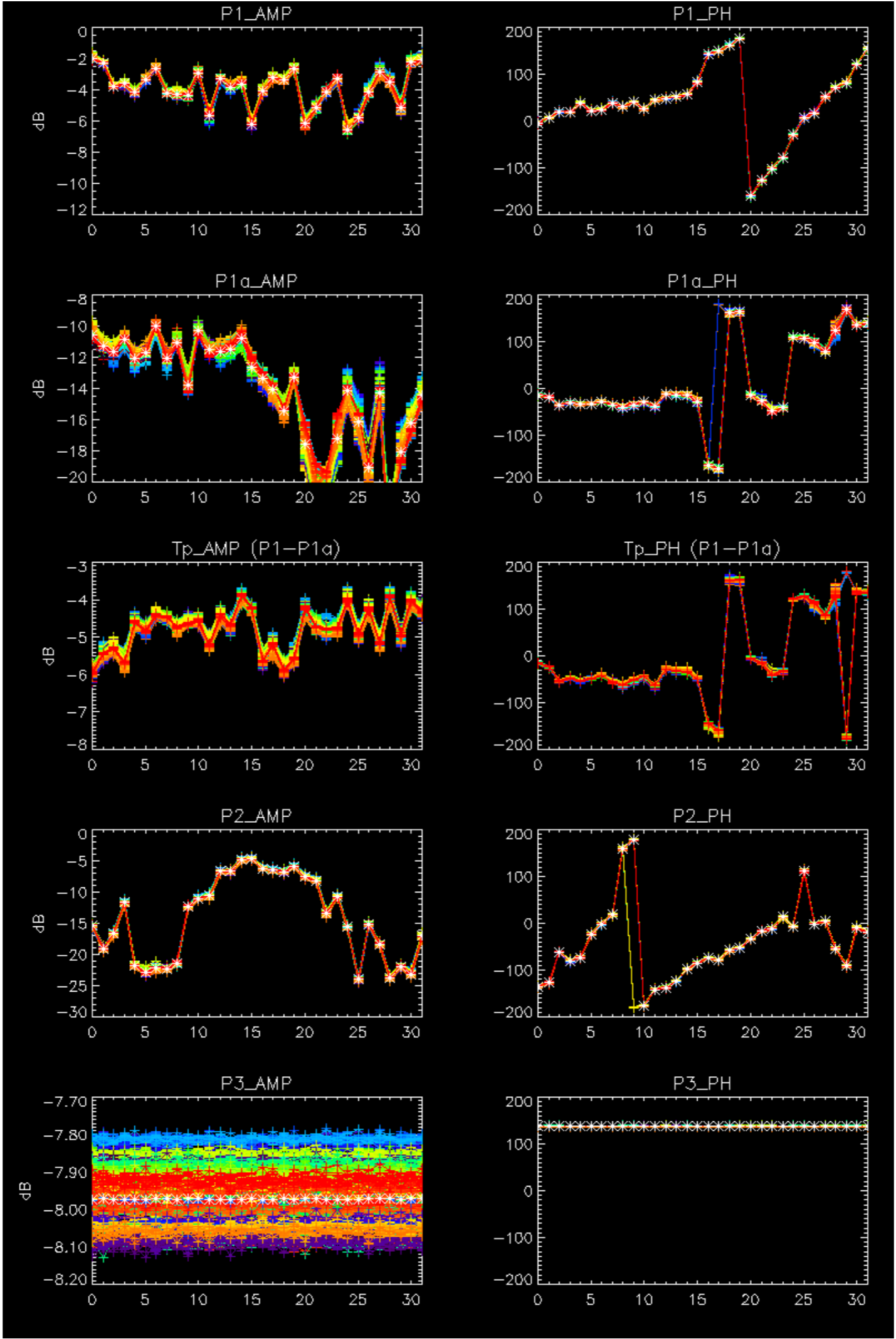


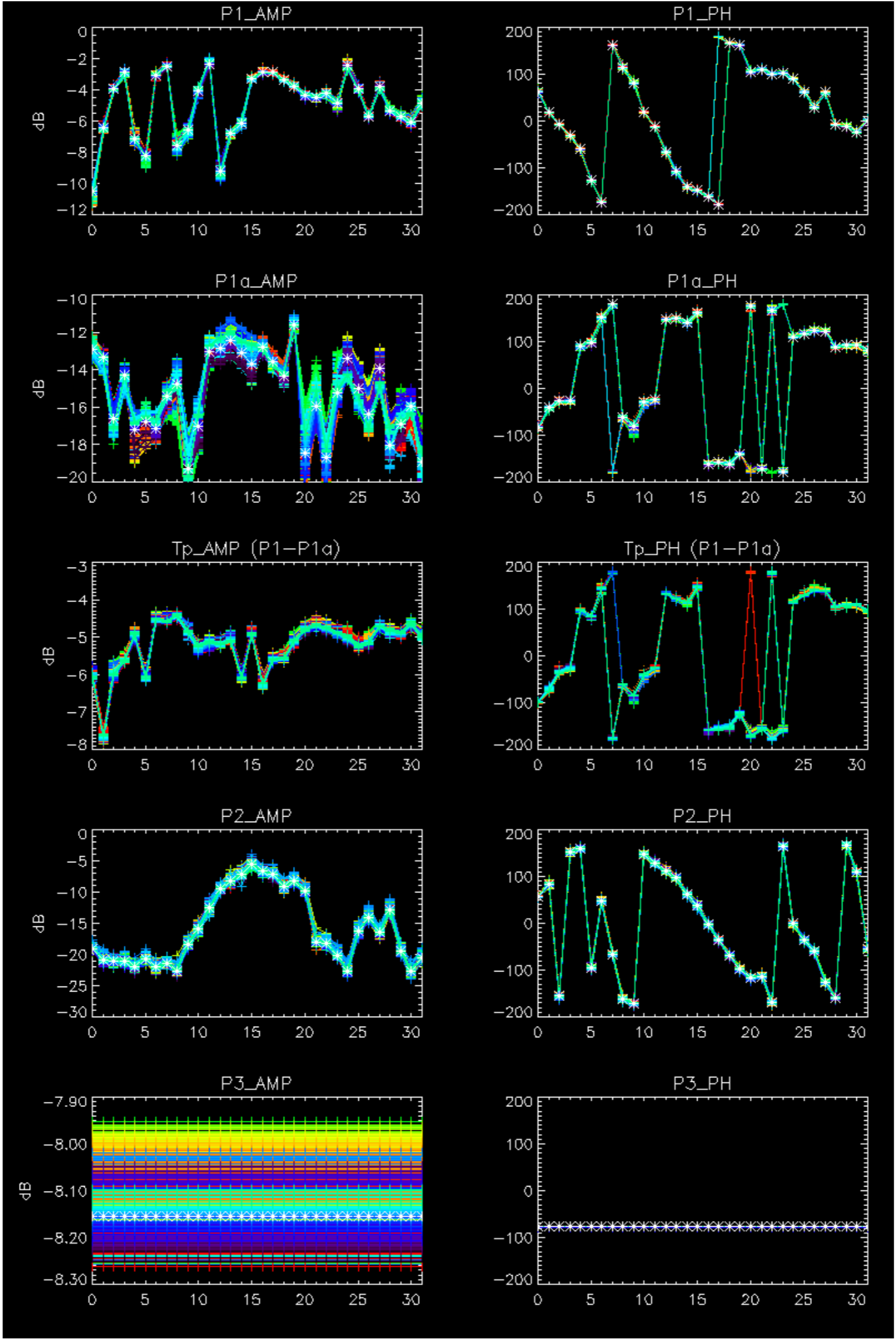
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



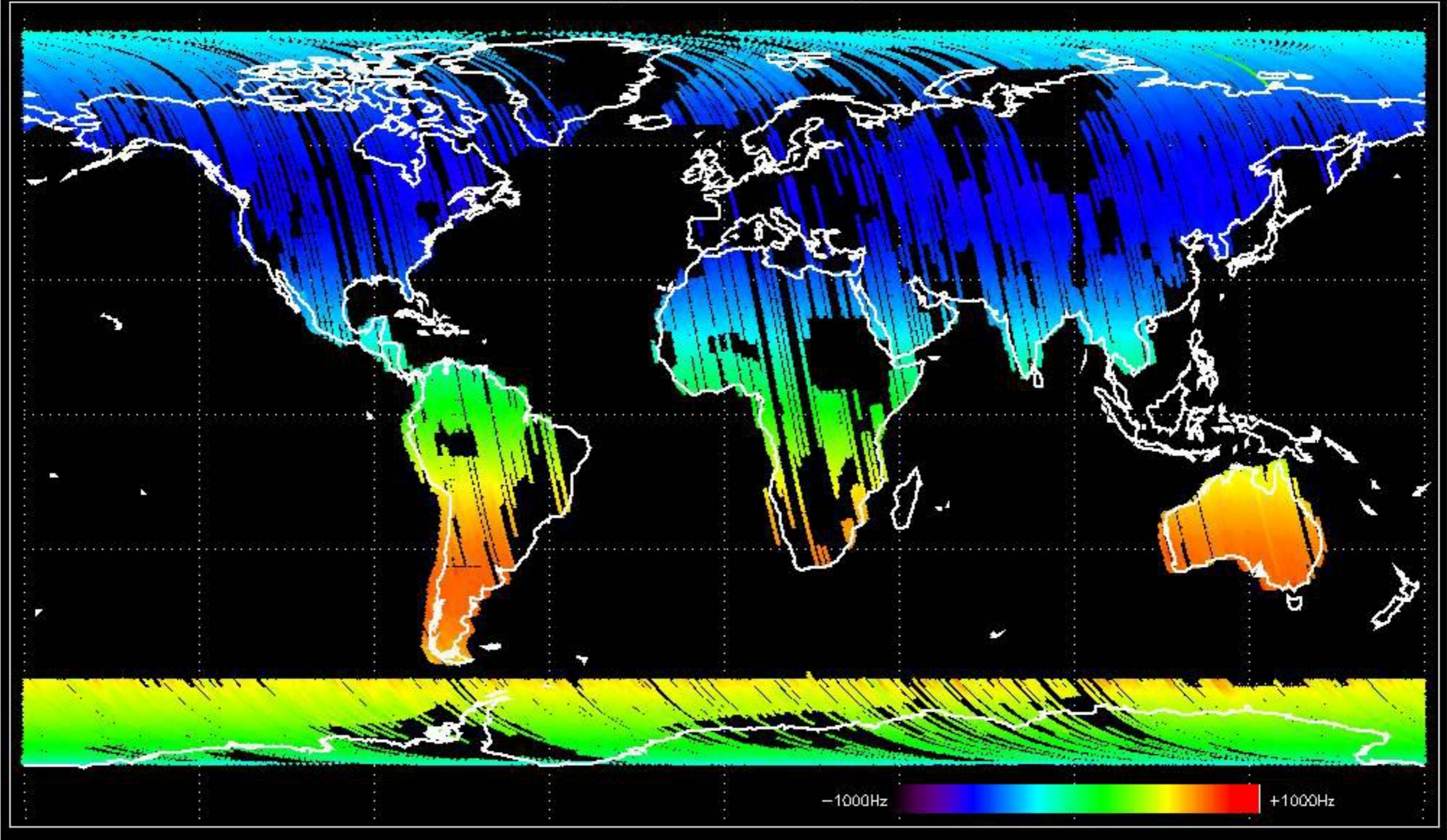
No anomalies observed.



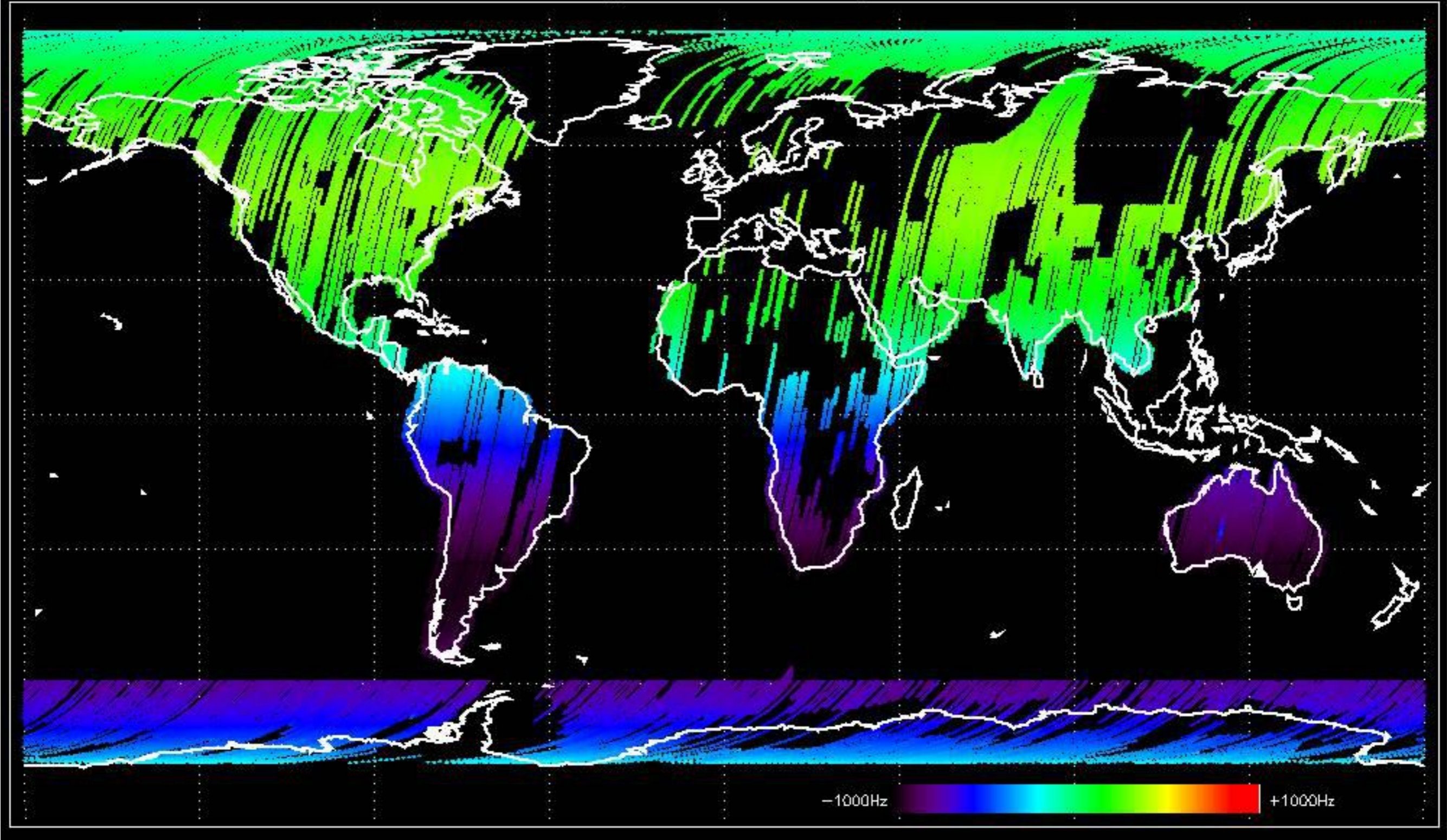


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

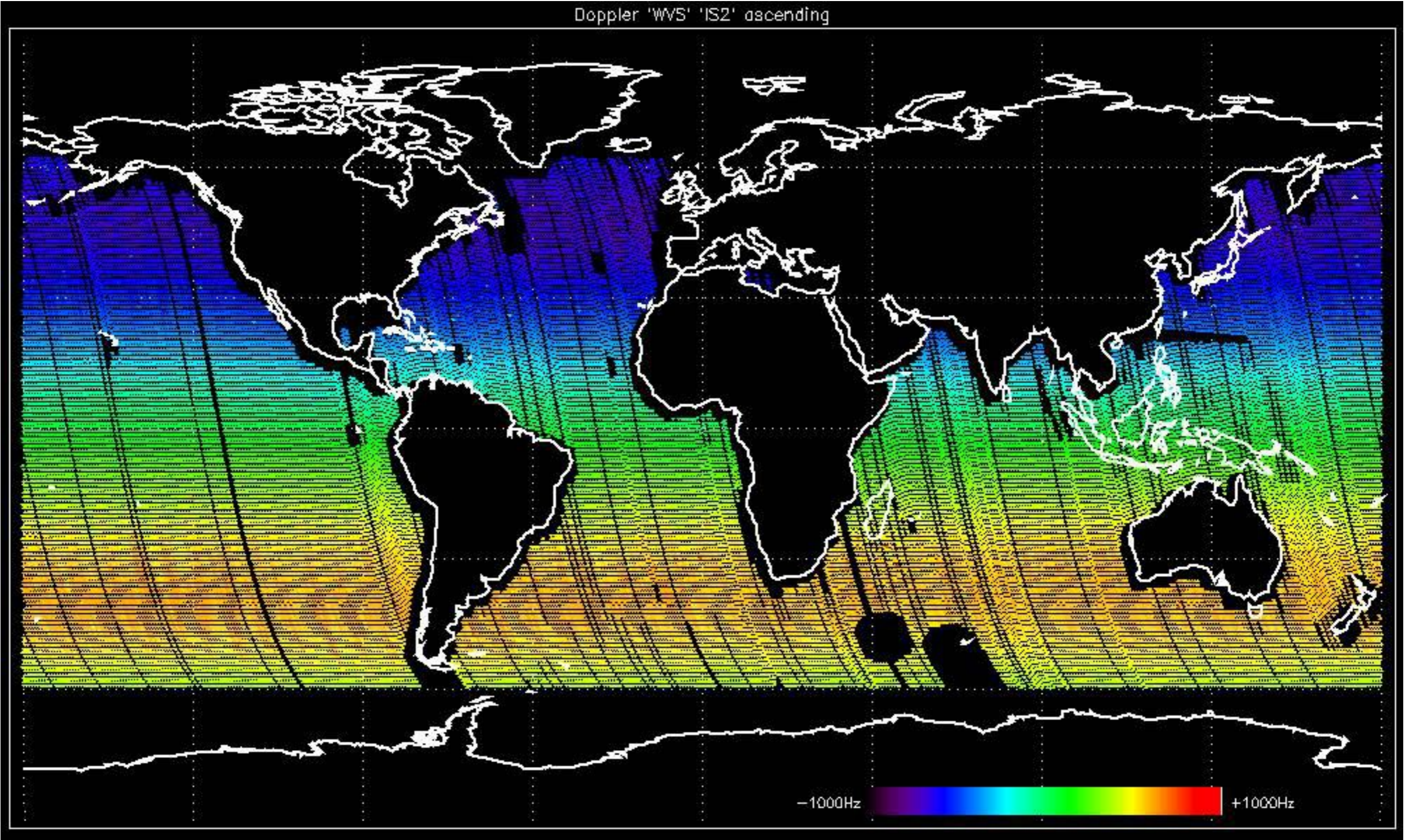
Doppler 'GM1' 'SS1' ascending



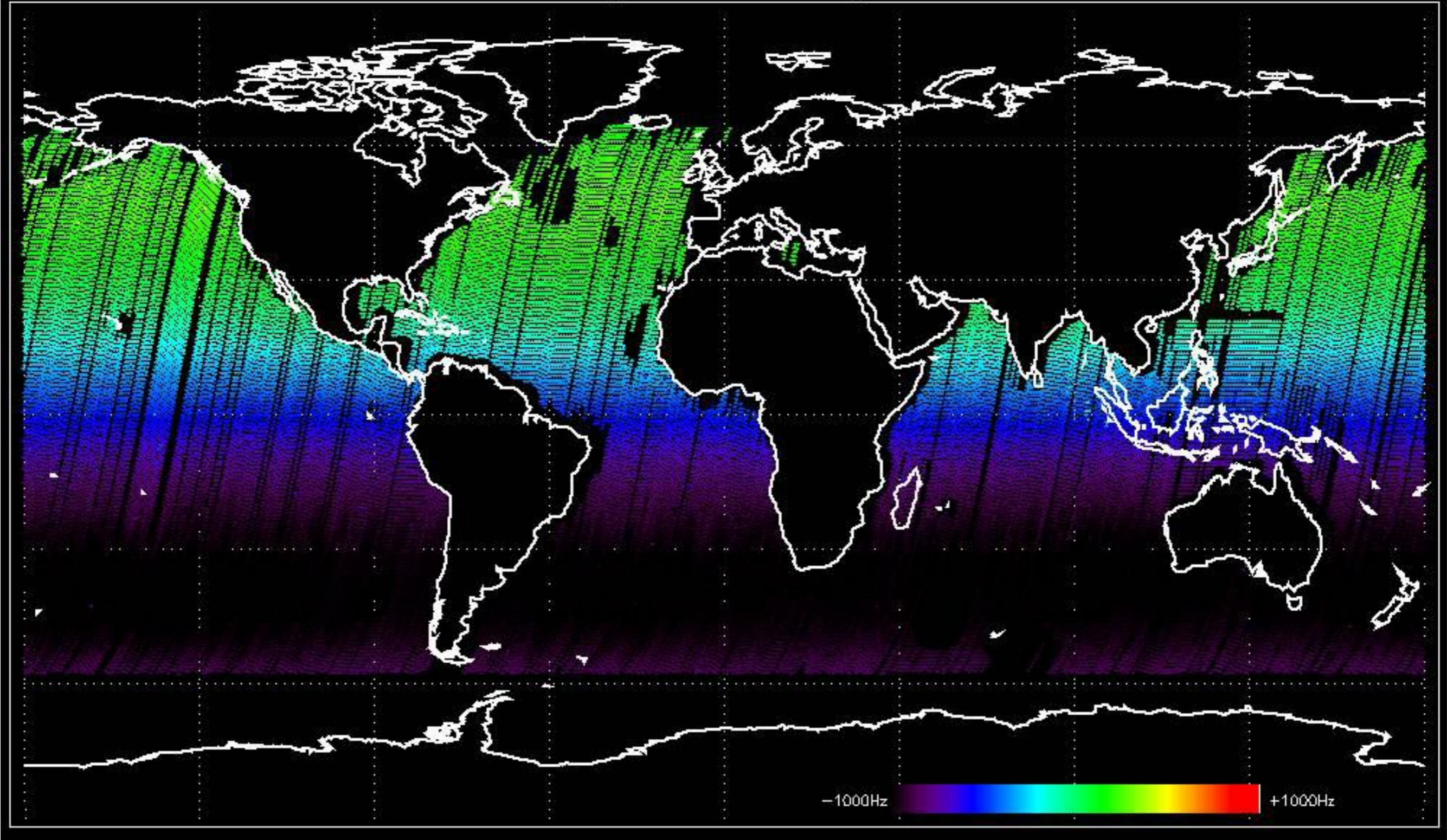
Doppler 'GM1' 'SS1' descending



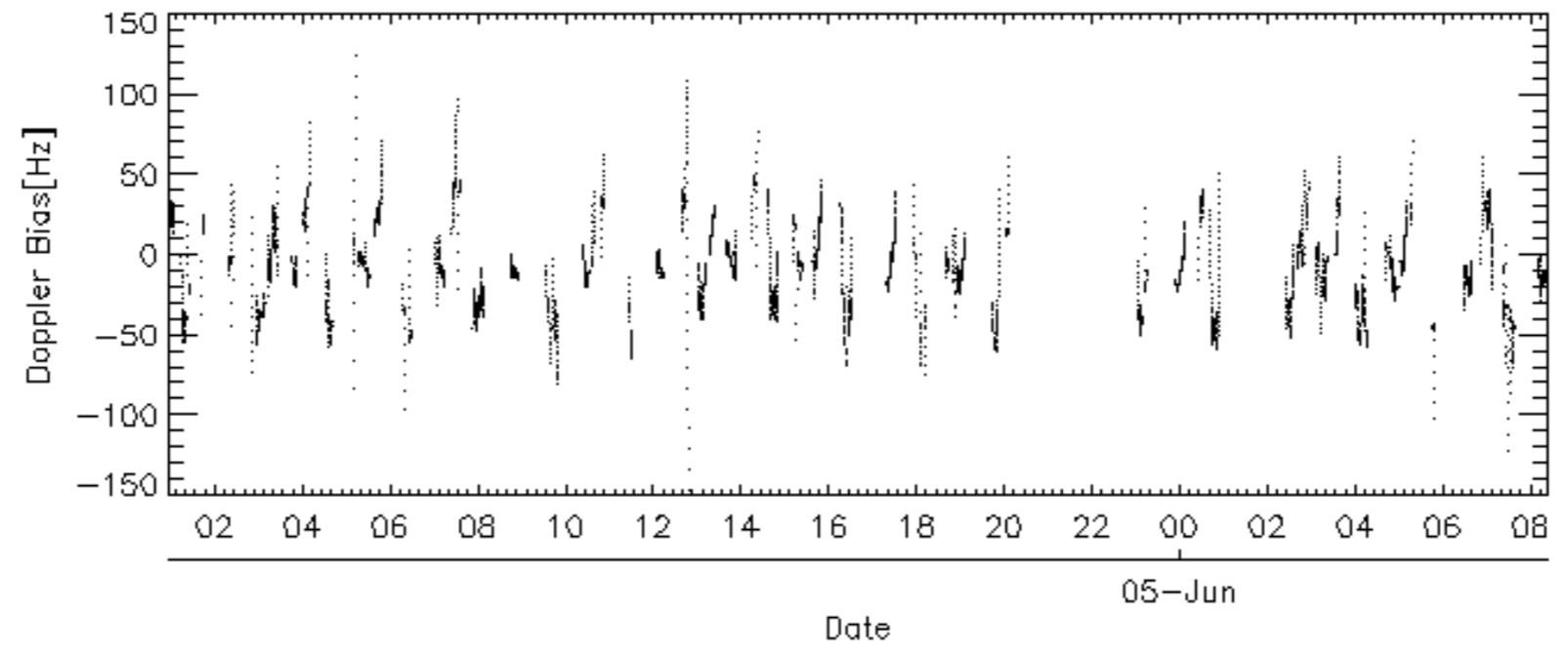
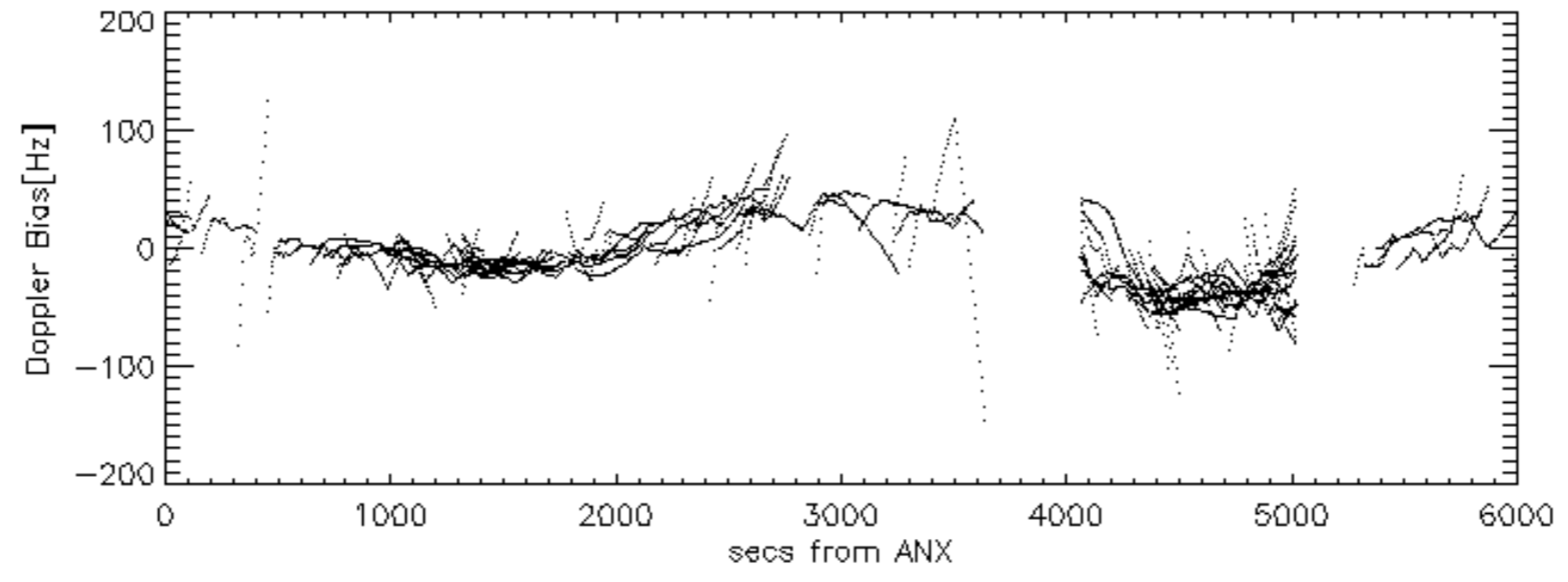
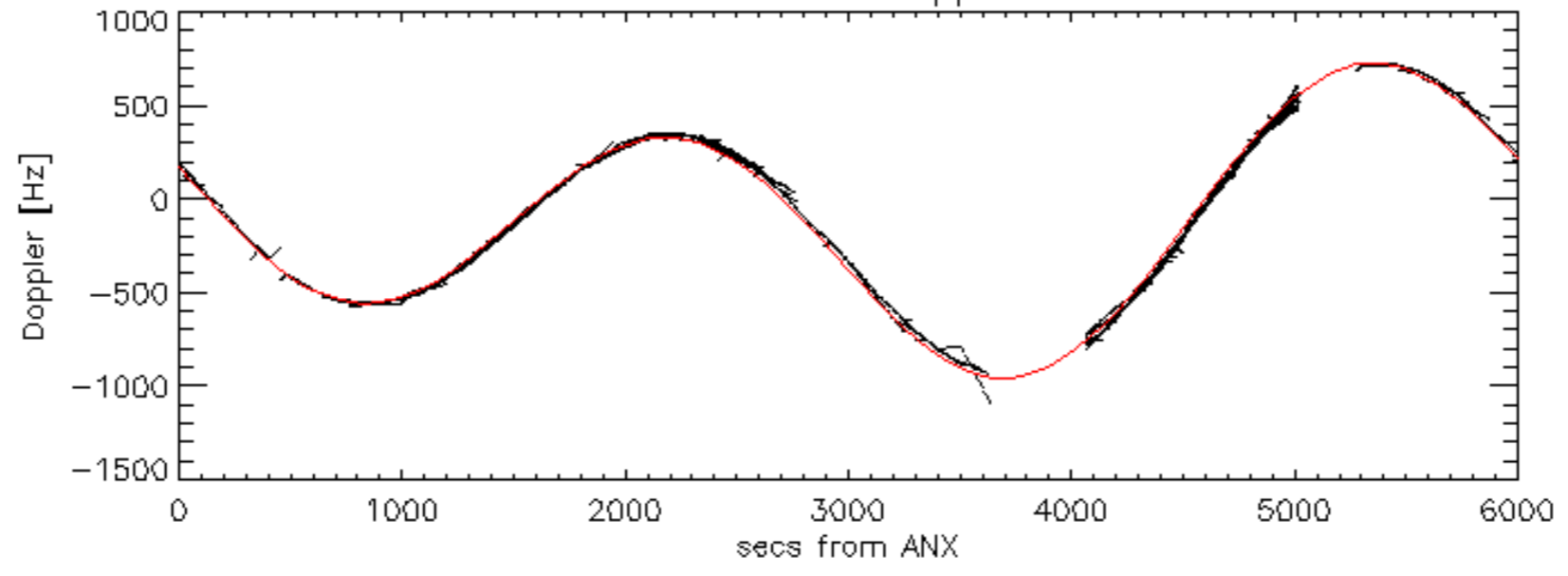
Doppler 'WVS' 'IS2' ascending

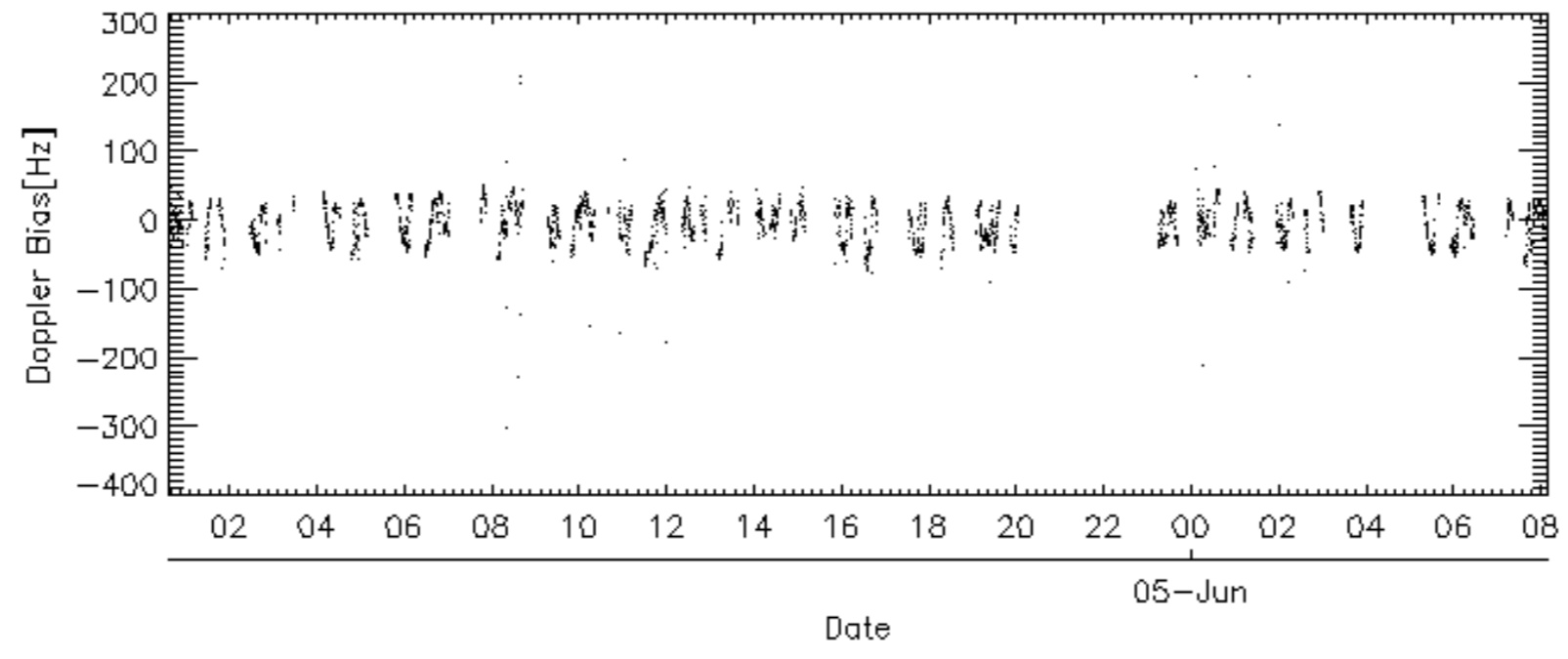
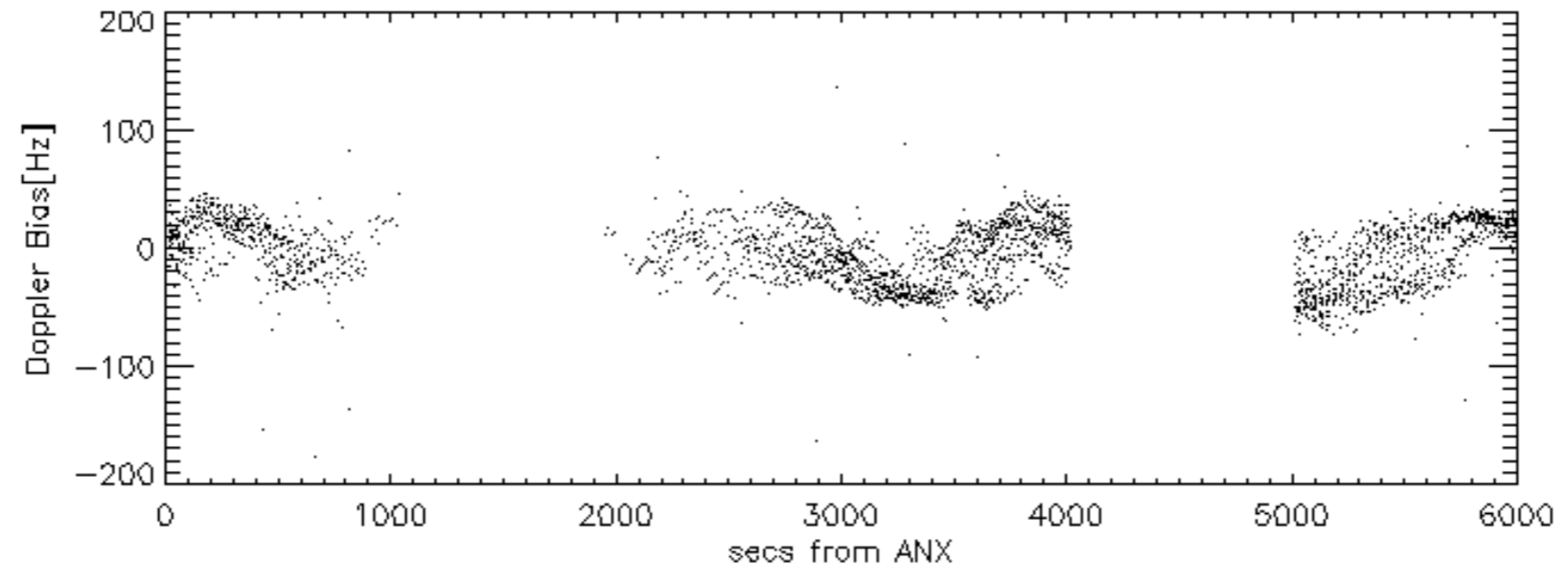
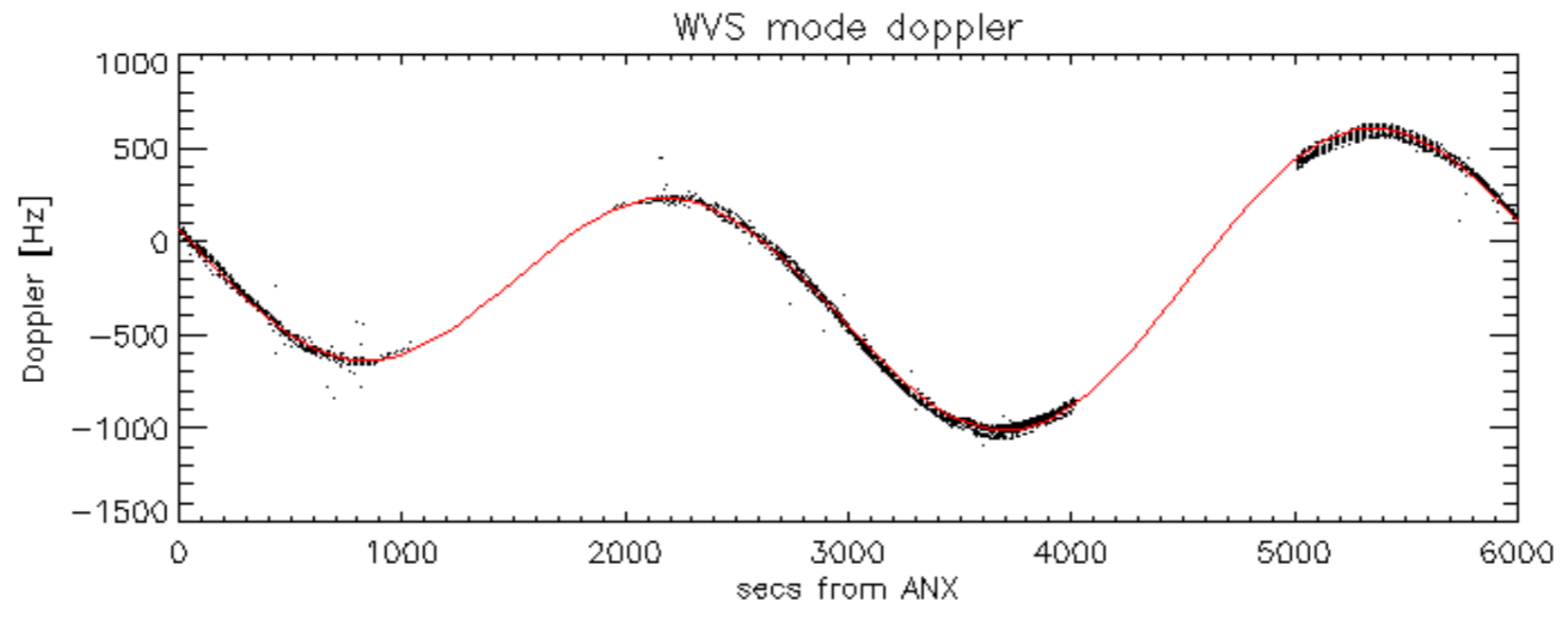


Doppler 'WVS' 'IS2' descending

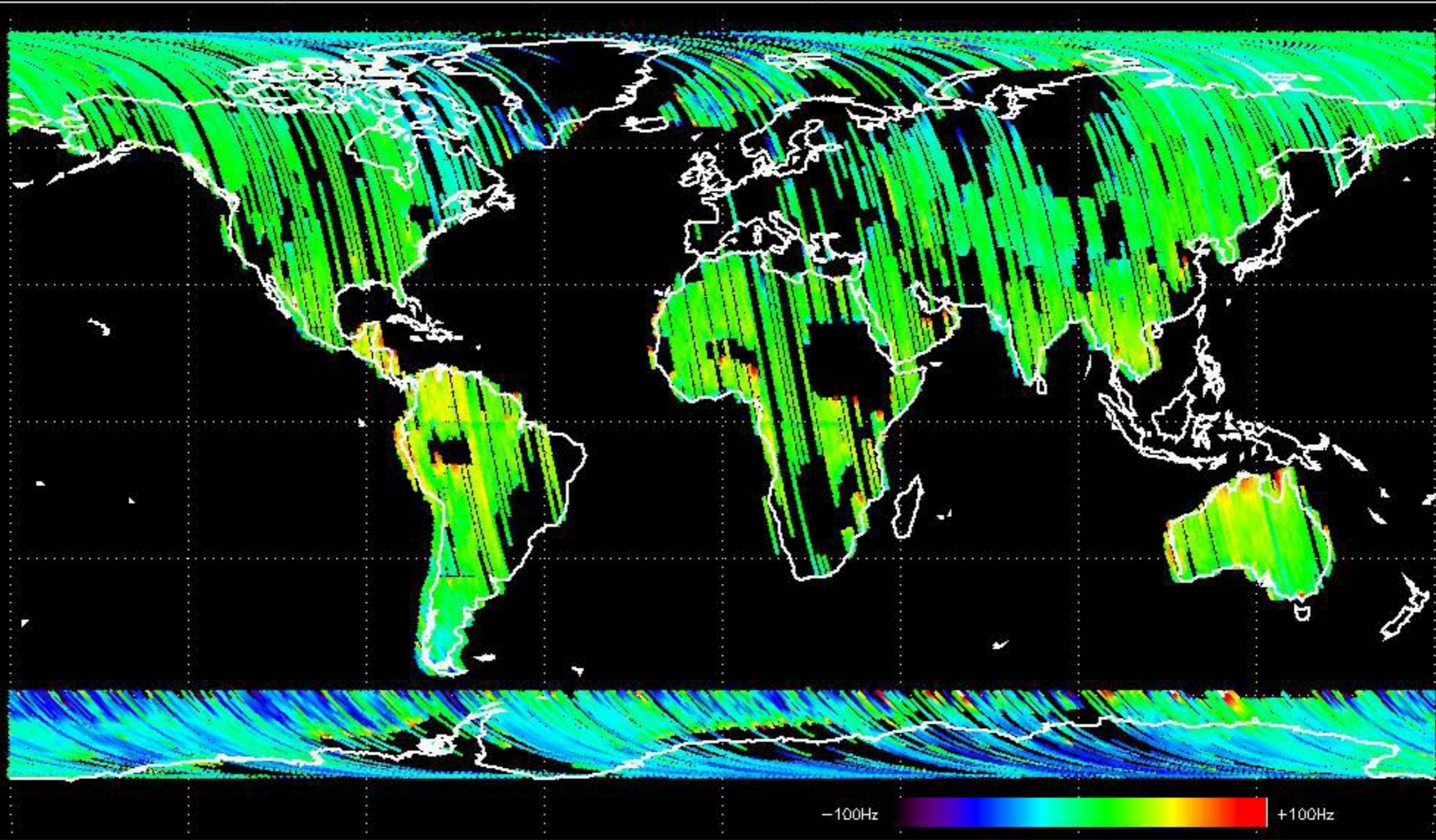


GM1 mode doppler

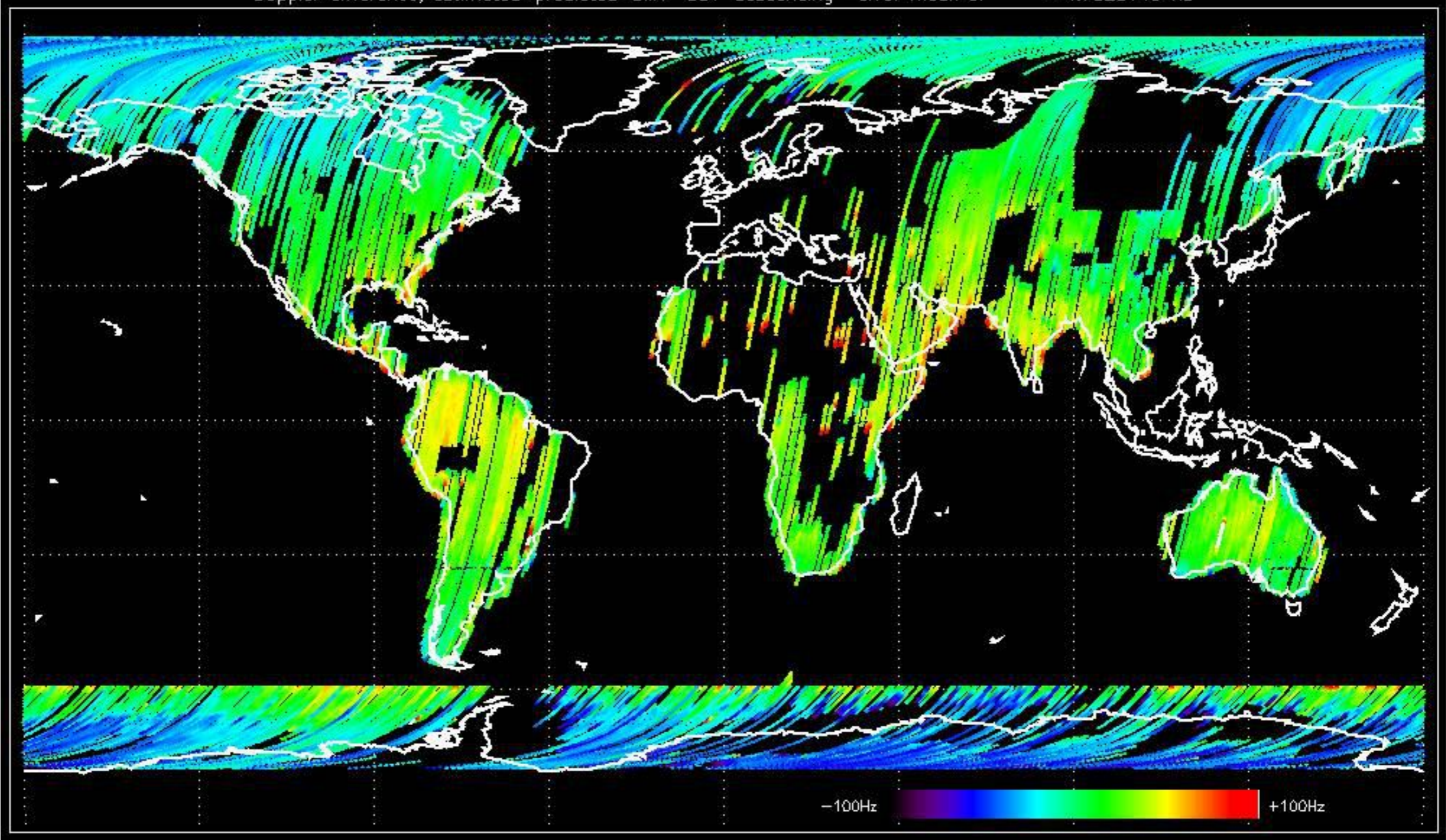




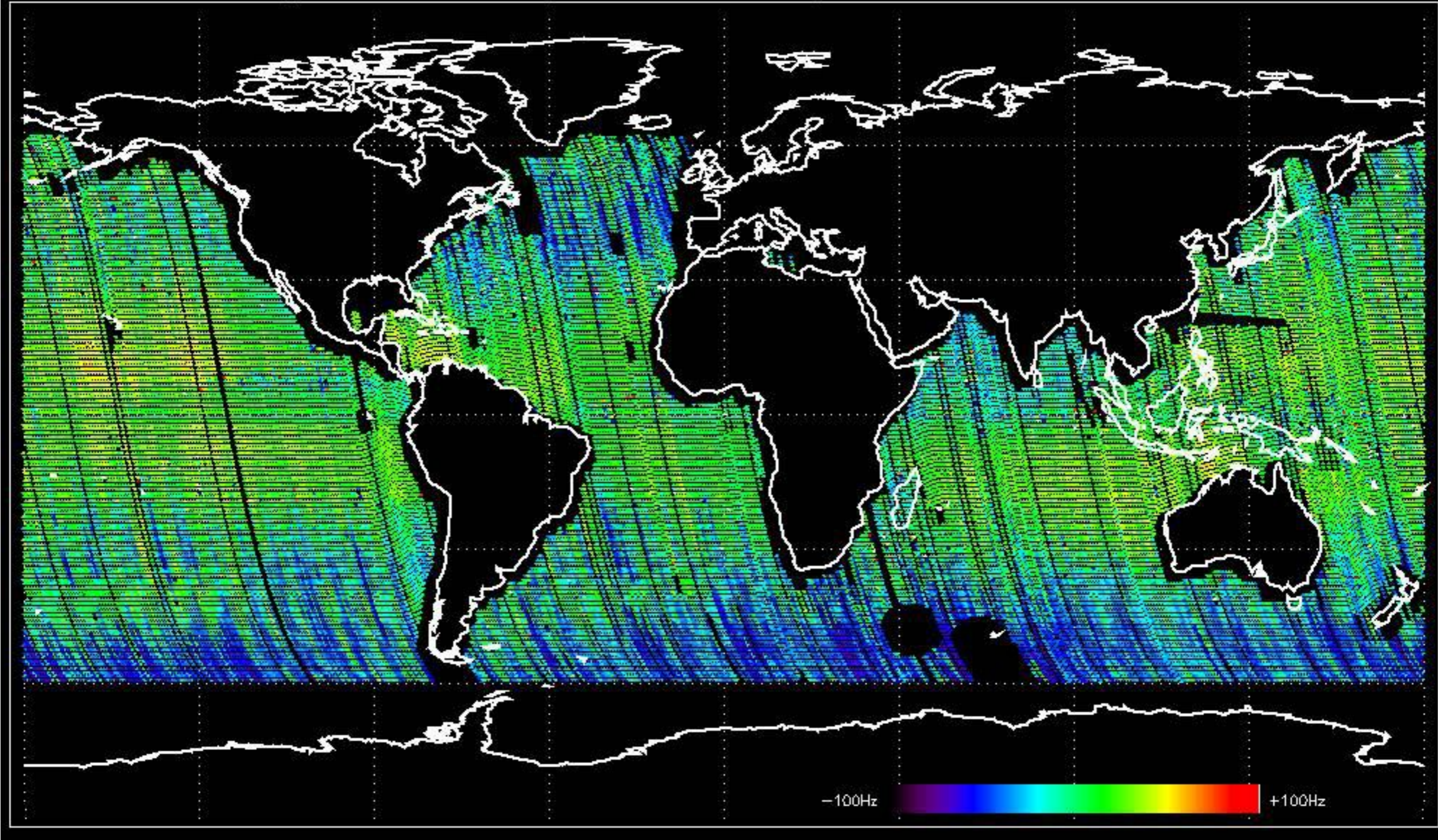
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -16.231011 Hz



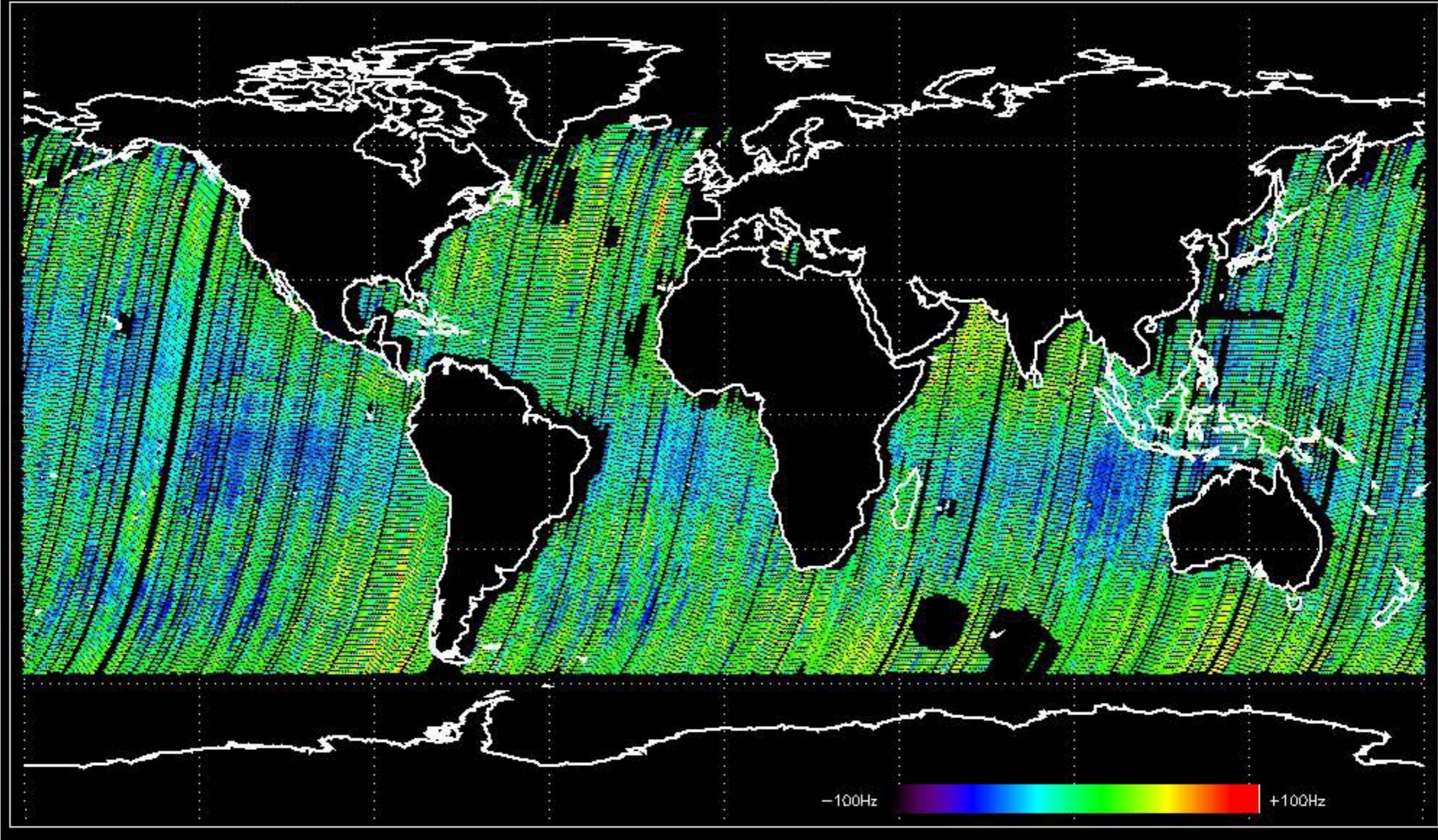
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -4.7325140 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.2812463 Hz

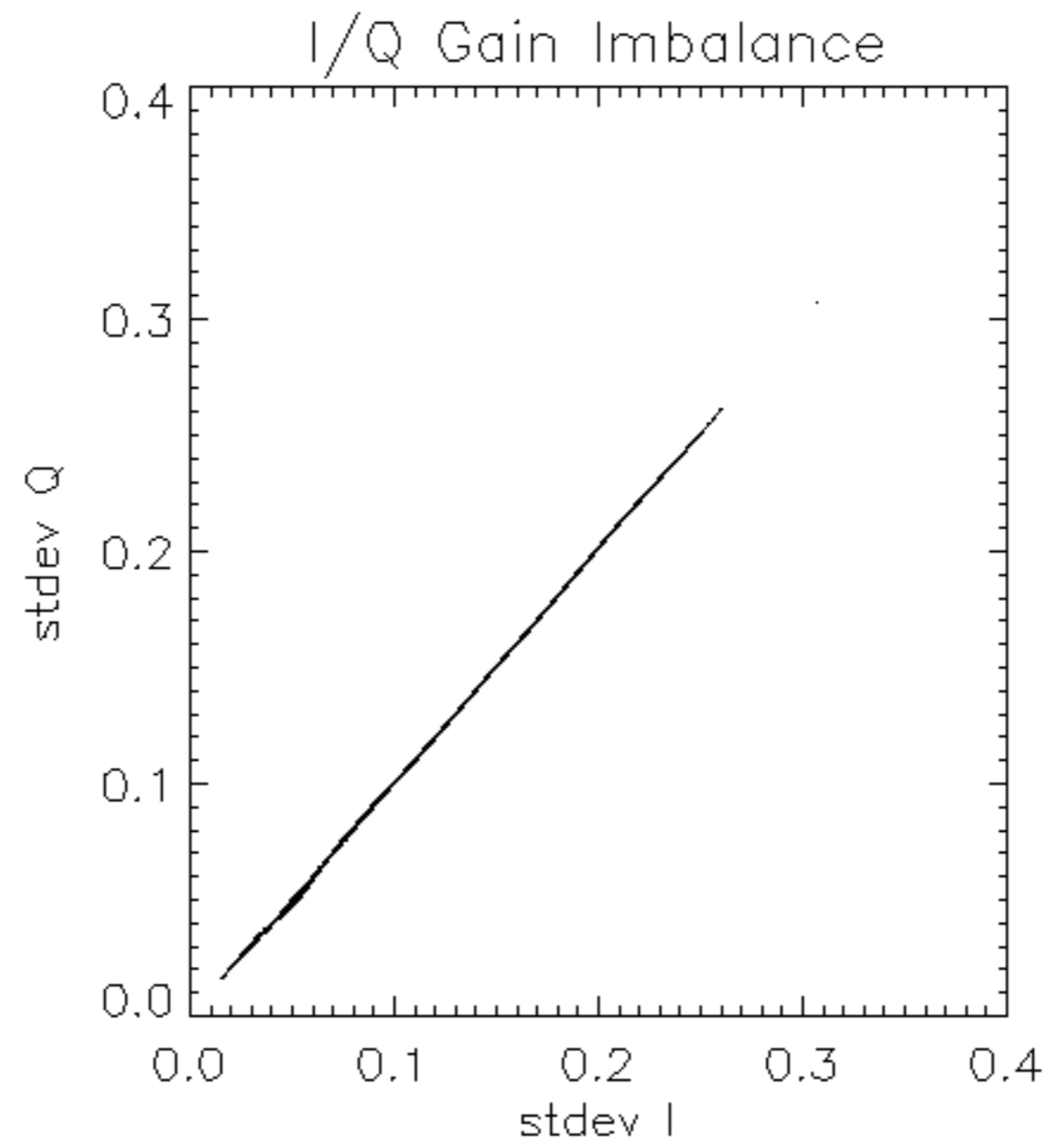


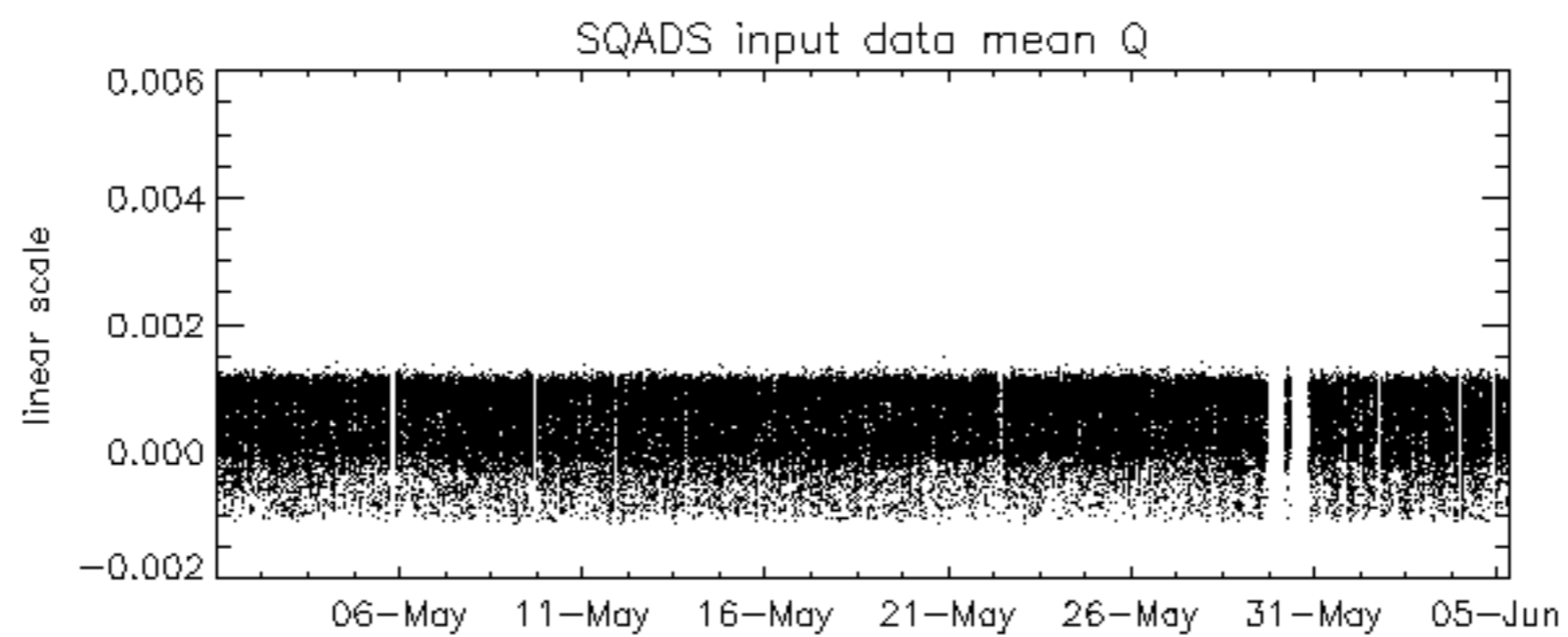
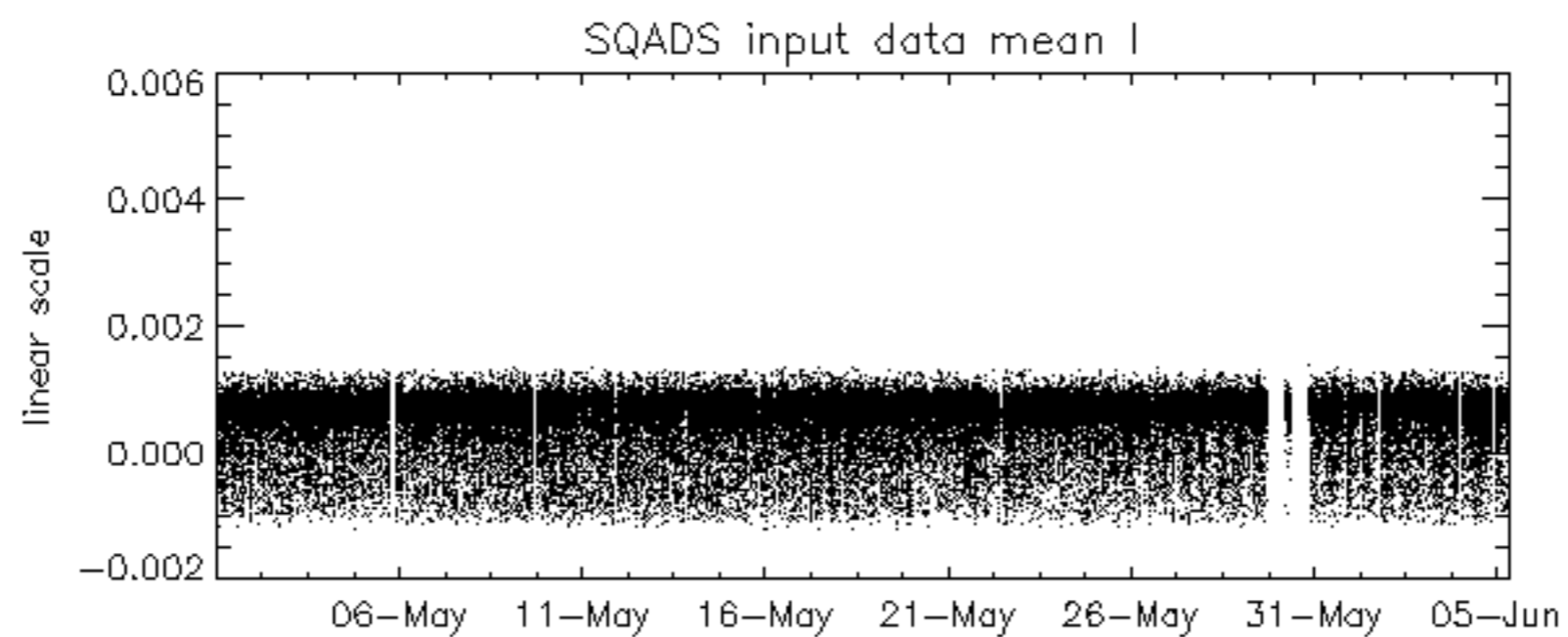
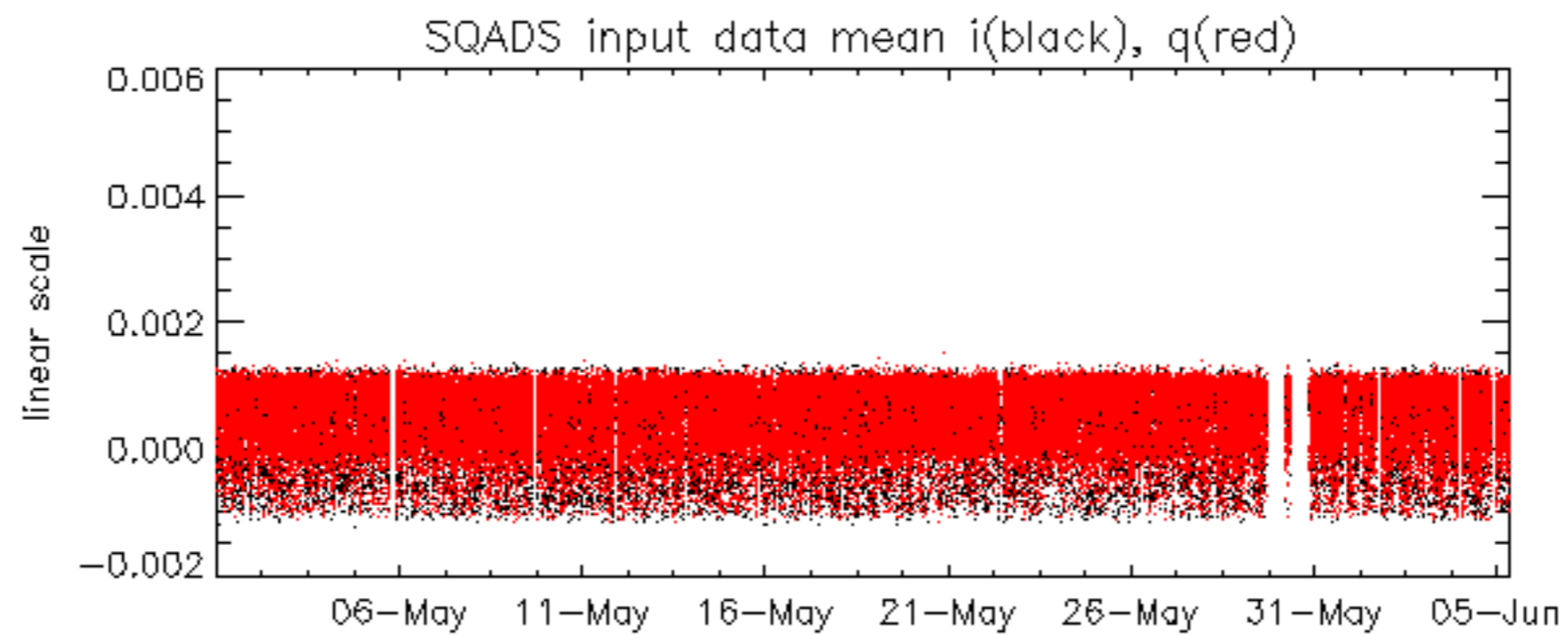
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.568609 Hz

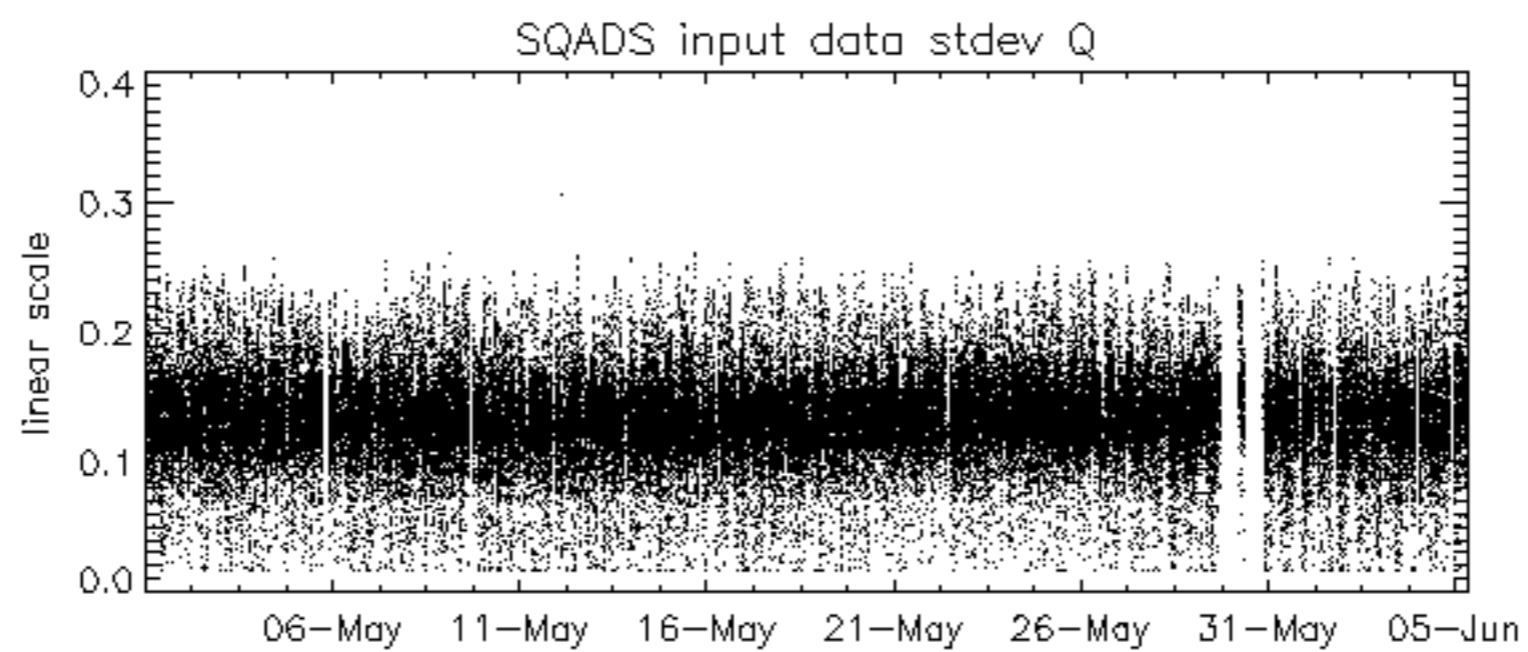
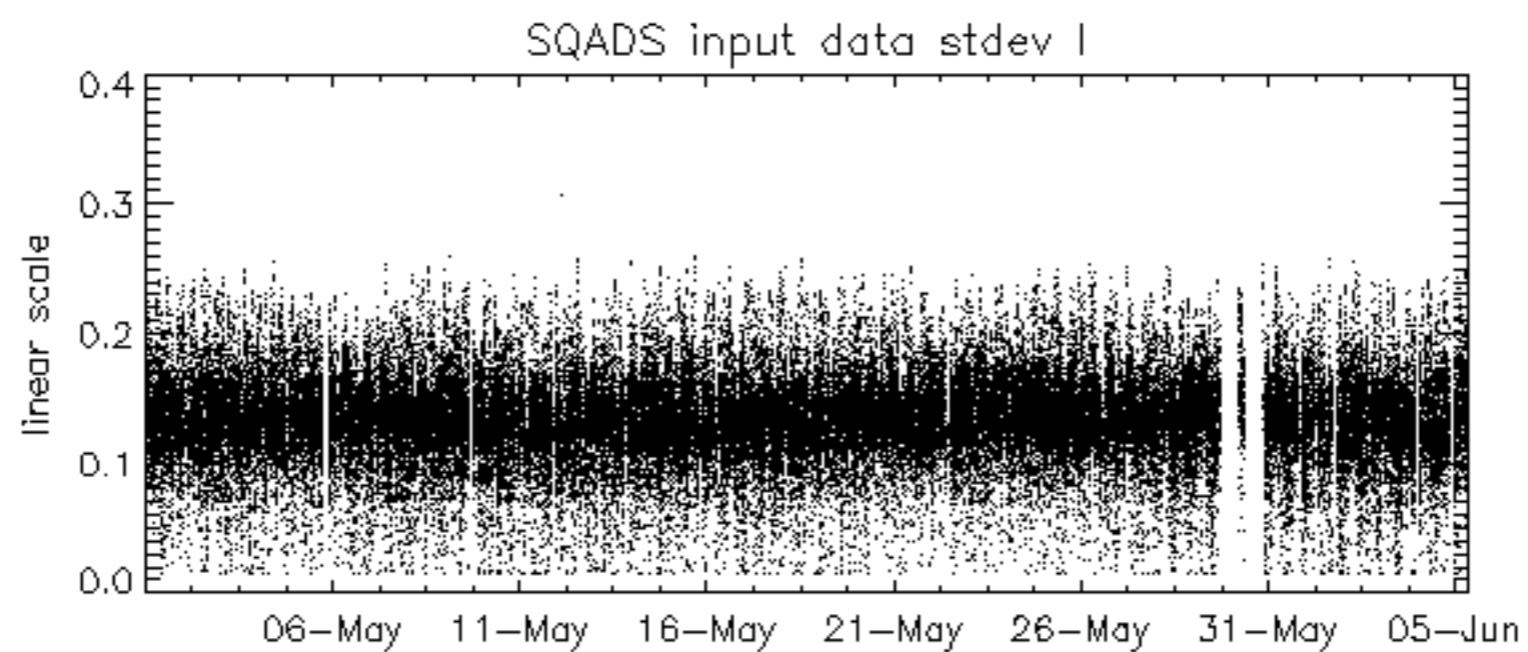
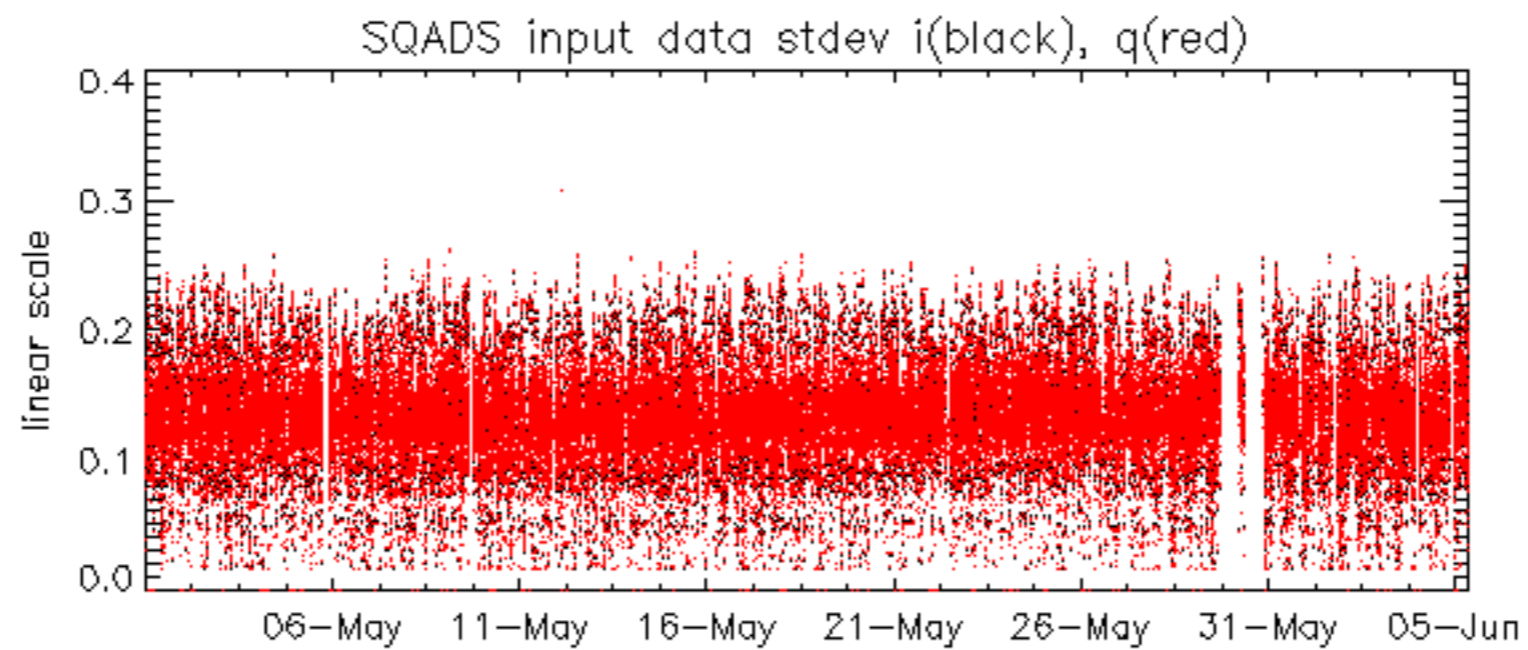


No anomalies observed on available MS products:

No anomalies observed.



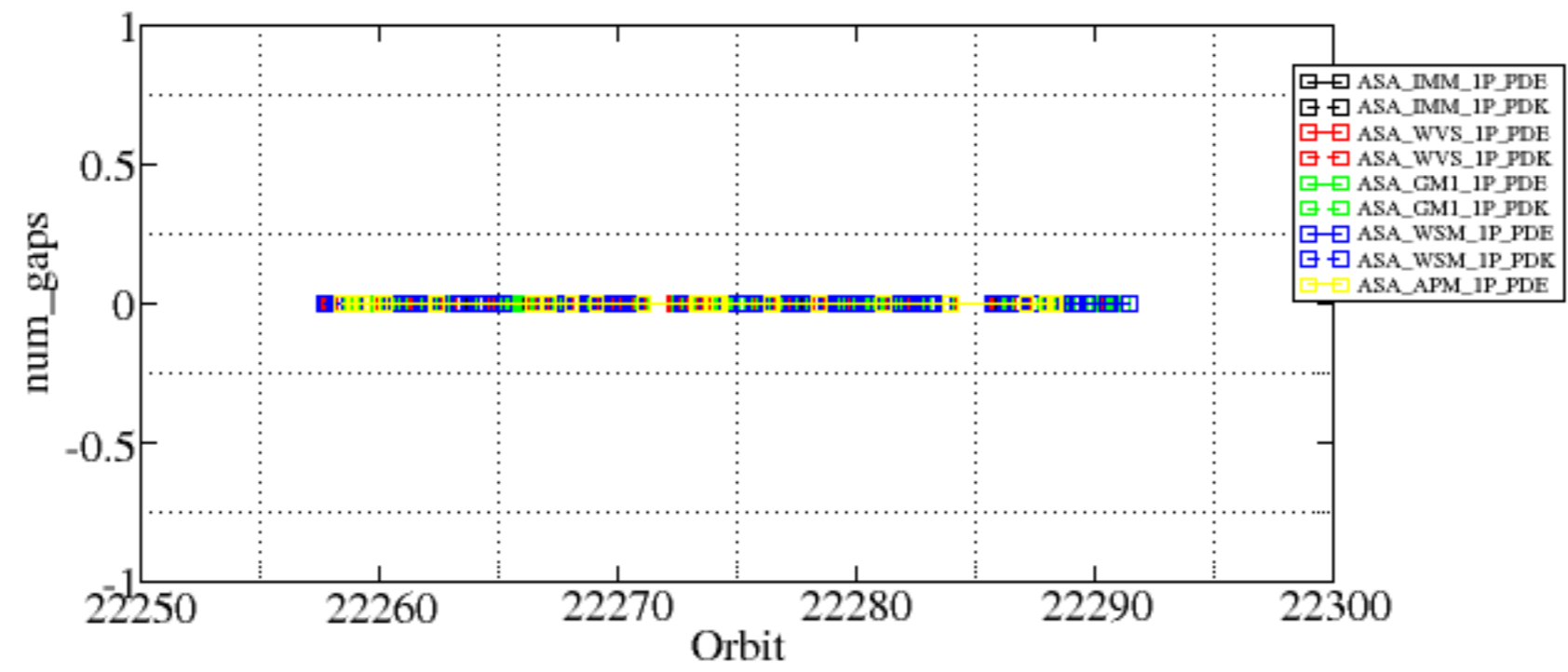


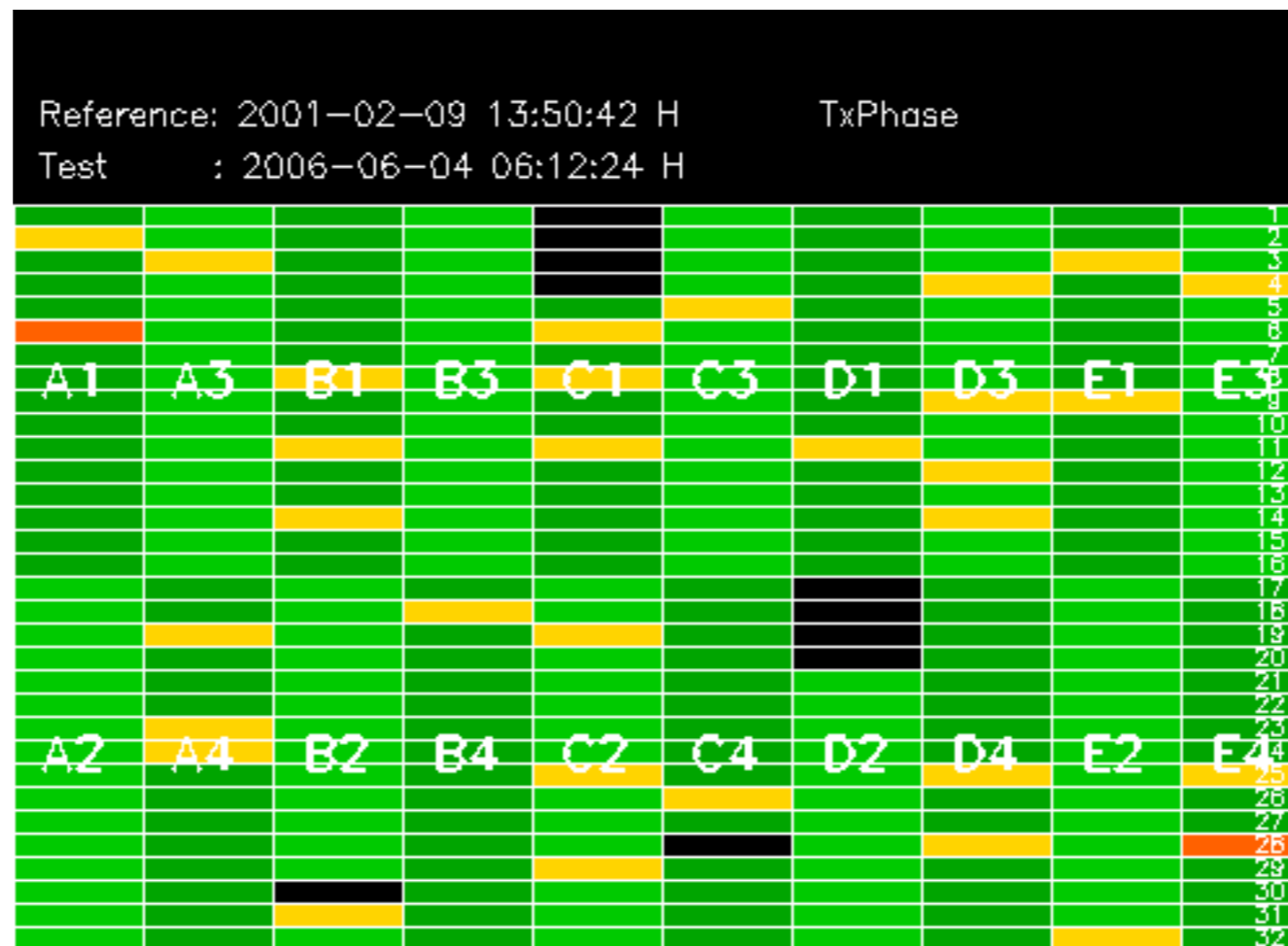


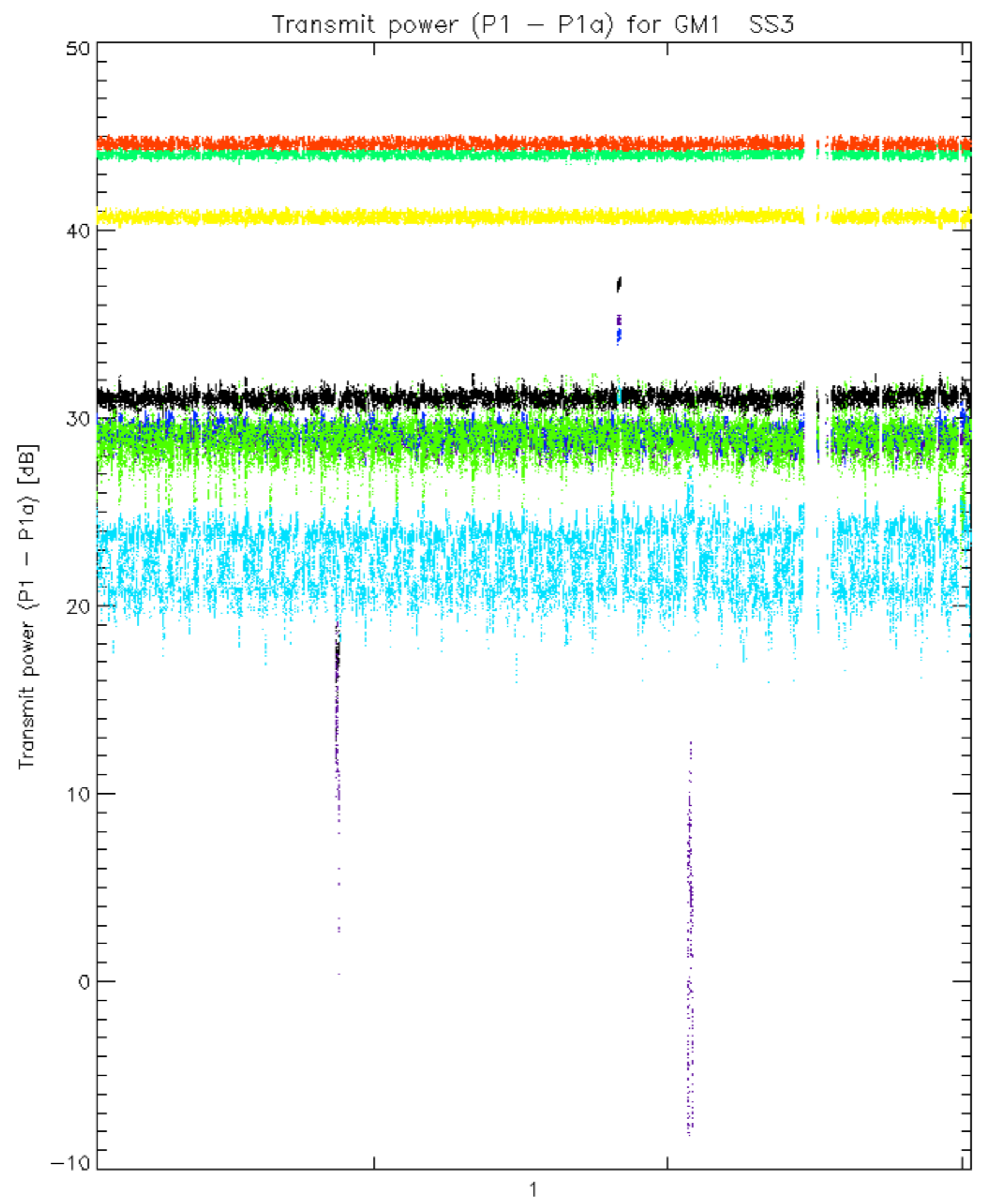
Summary of analysis for the last 3 days 2006060[345]

The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

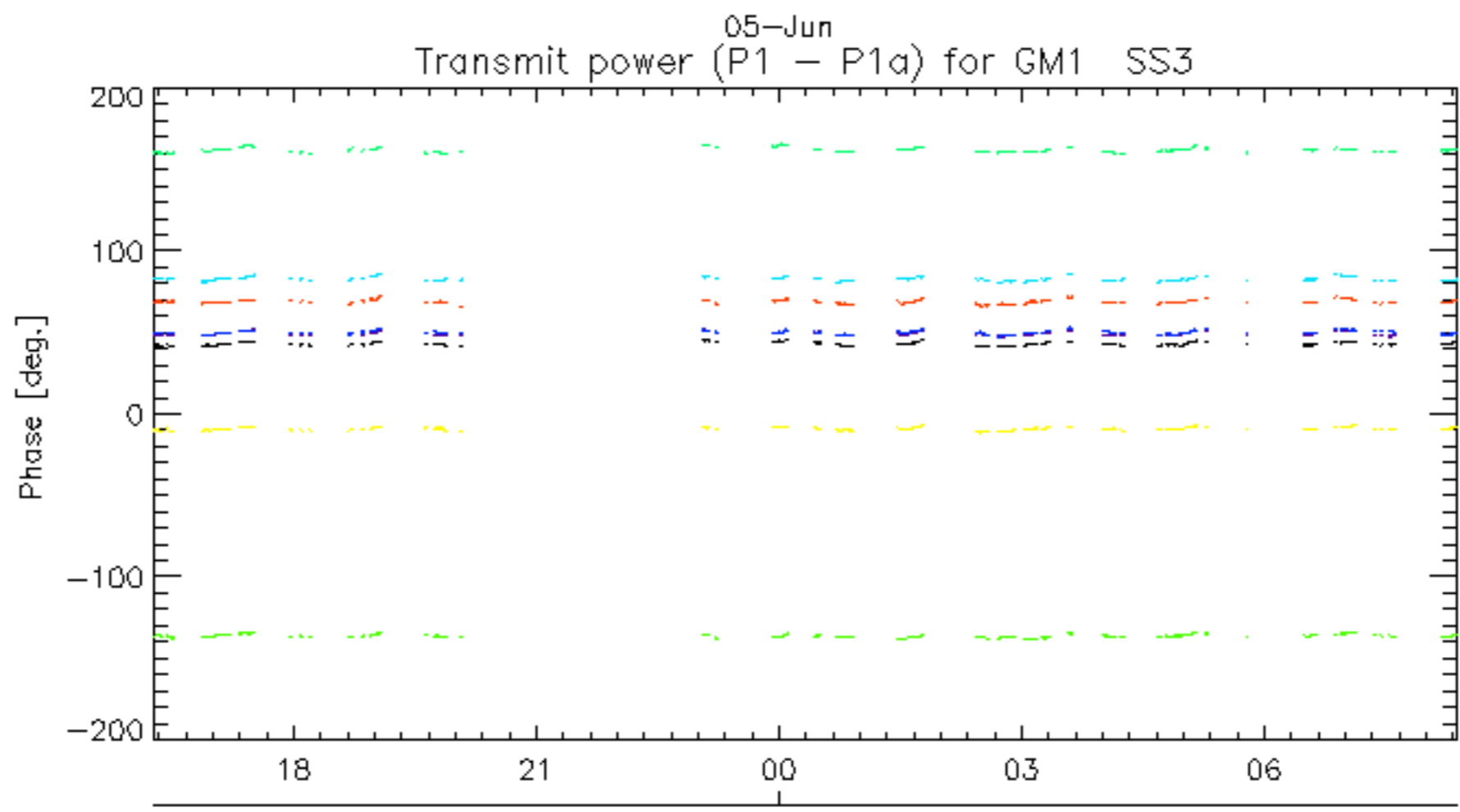
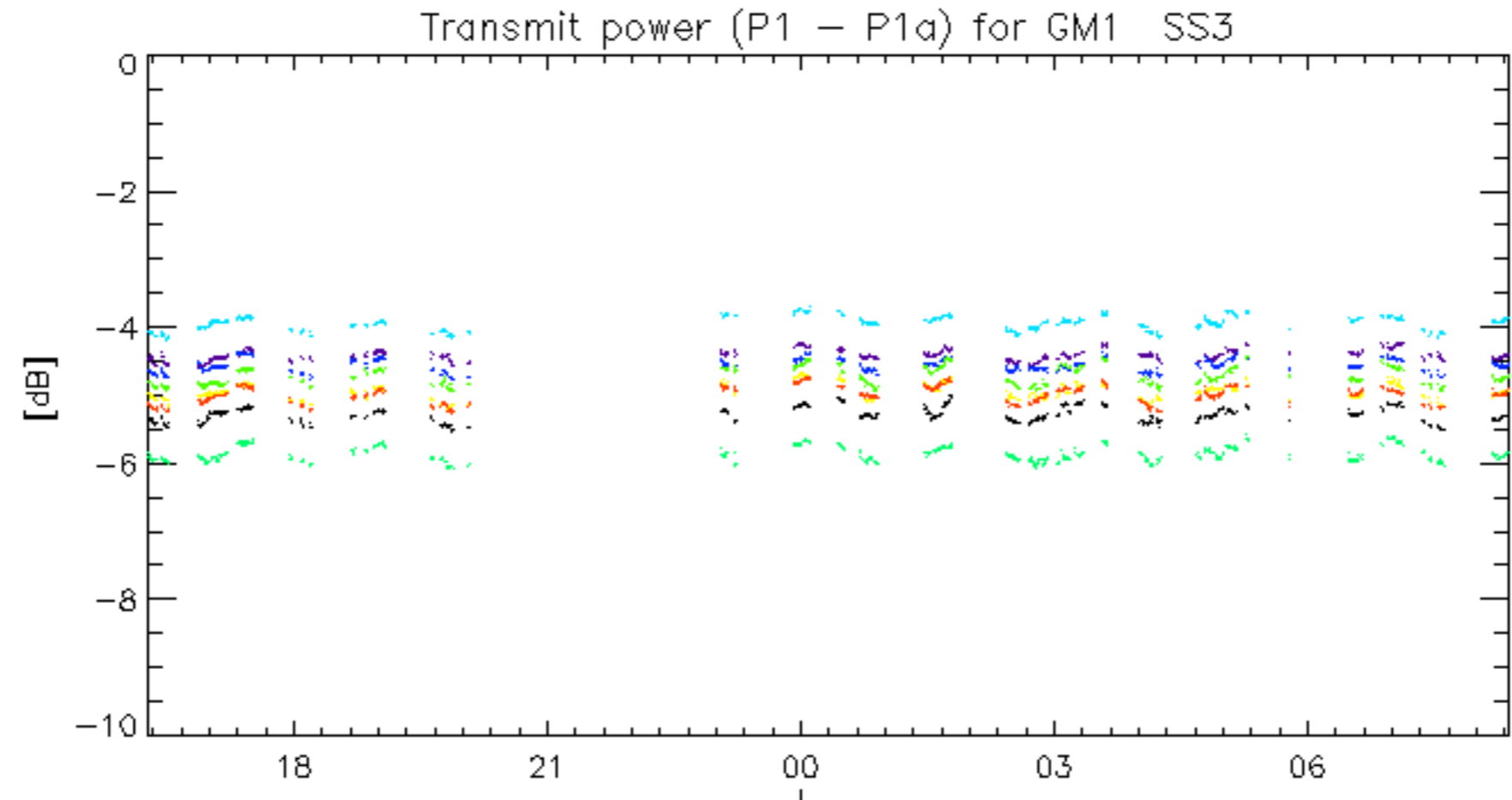
Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20060603_035851_00000852048_00162_22260_2386.N1	0	39
ASA_WSM_1PNPDE20060603_112210_000002262048_00166_22264_2437.N1	0	64
ASA_WSM_1PNPDE20060604_165033_00000852048_00184_22282_2609.N1	0	34
ASA_WSM_1PNPDE20060604_183353_00000852048_00185_22283_2624.N1	0	39
ASA_WSM_1PNPDE20060605_015912_00000852048_00189_22287_2669.N1	0	63
ASA_WSM_1PNPDE20060605_043830_000001282048_00191_22289_2688.N1	0	34
ASA_WSM_1PNPDK20060604_083041_00000862048_00179_22277_6799.N1	0	71
ASA_WSM_1PNPDK20060604_133138_000002932048_00182_22280_6822.N1	0	23



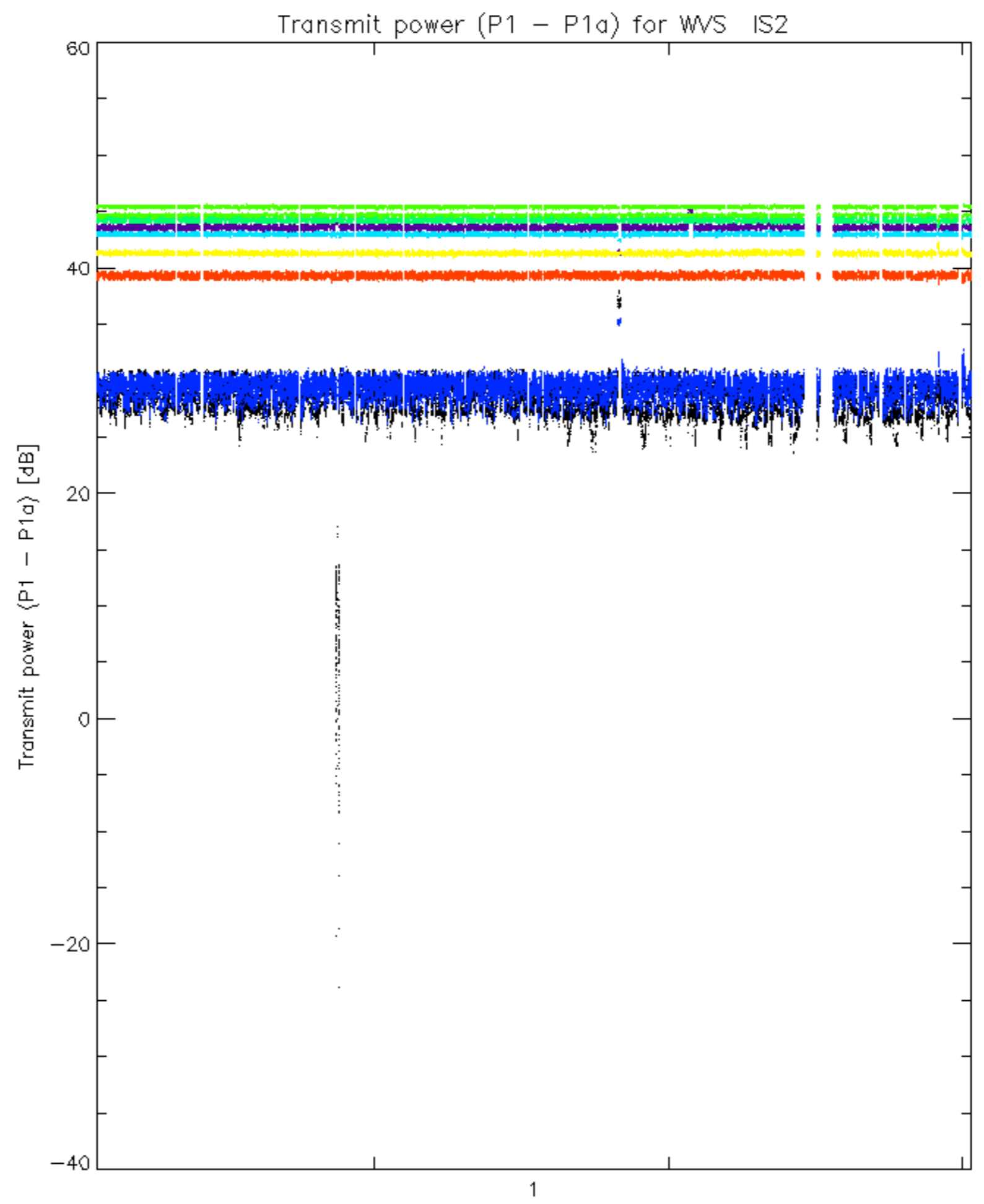


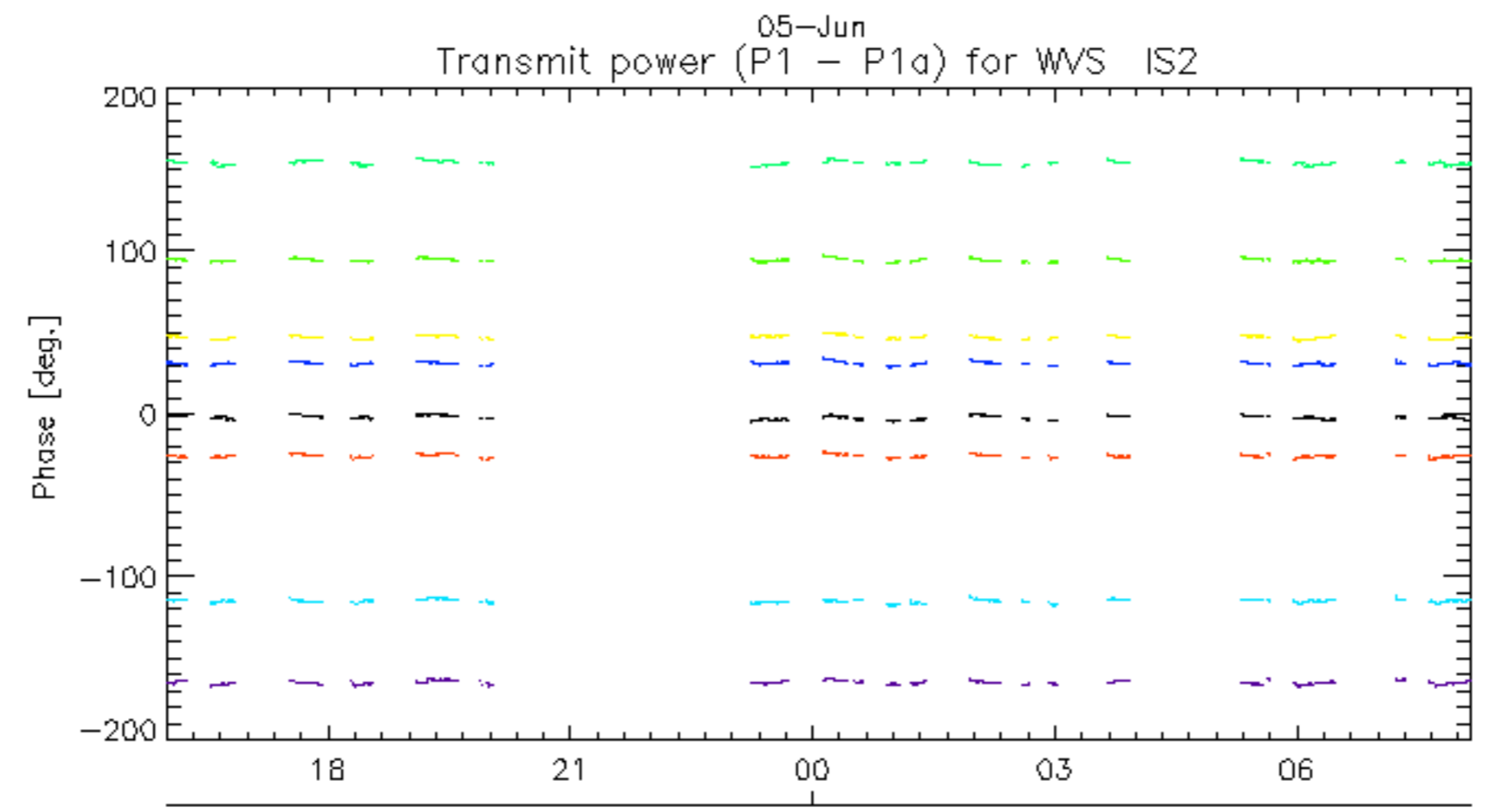
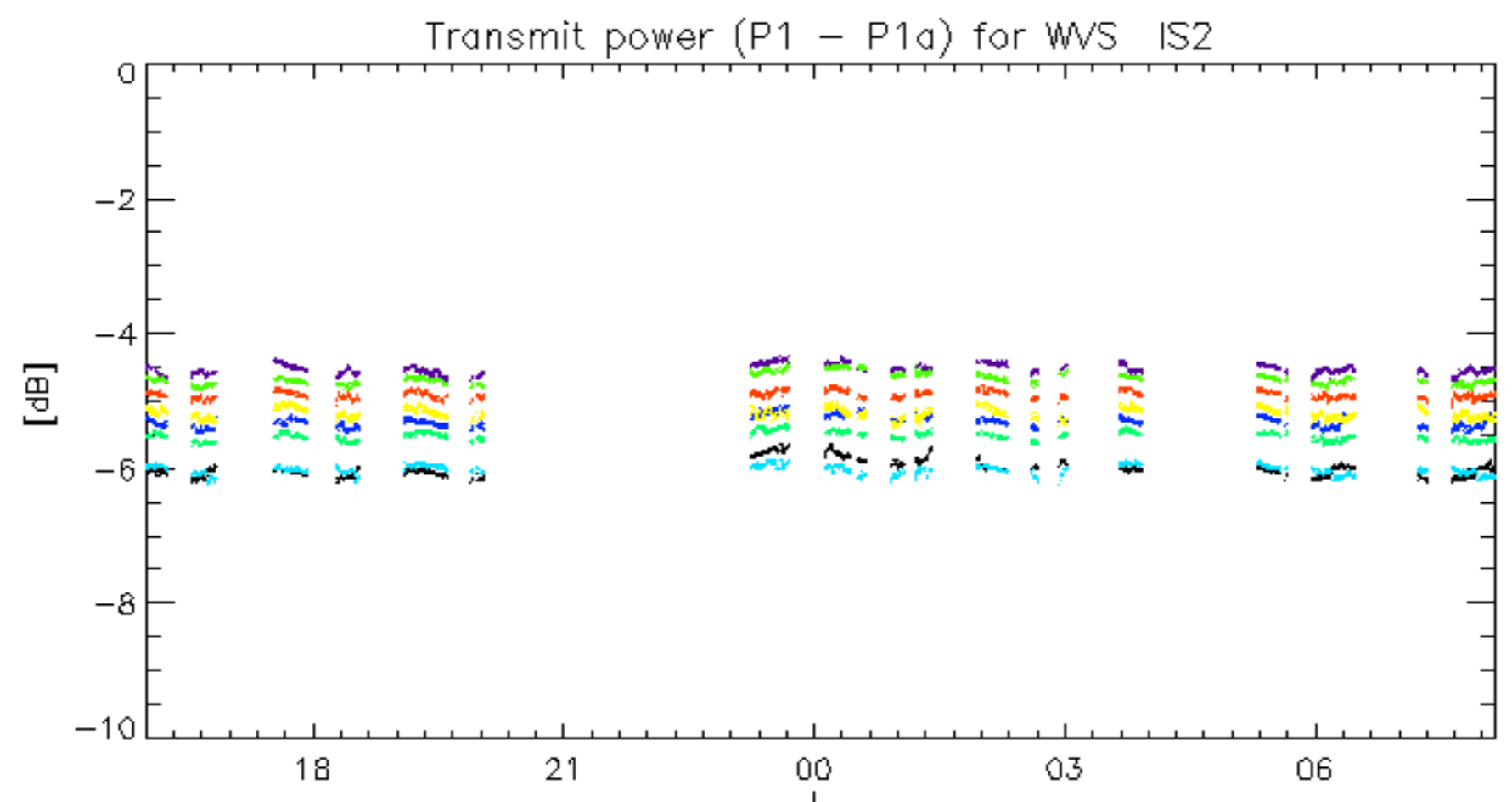


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.